
# Clinical Skills Workshop

## Part 1: 2:05-2:50pm

# DISCLAIMER

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# Inflammatory Bowel Disease (IBD) Patient Case

Miranda Kozlicki, PharmD, CSP

NASP 2024 Annual Meeting & Expo | Nashville, Tennessee

# IBD Patient Case

DS is a 24-year old male who was diagnosed with moderate to severe Crohn's disease at age 20. He was first started on prednisone to manage his symptoms of severe abdominal pain, frequent diarrhea, and wight loss. DS was transitioned to azathioprine as a long-term immunosuppressive therapy, but his symptoms persisted so he started infliximab infusions at age 22. DS presents today with ongoing symptoms of Crohn's disease despite being on infliximab therapy. His symptoms include persistent abdominal pain, frequent diarrhea (up to 8 times a day), and occasional rectal bleeding.  Initially, DS experienced some improvement in his symptoms. However, over the past six months, his symptoms have worsened, and he has required hospitalization twice for disease exacerbations. Laboratory tests show elevated C-reactive protein (CRP) levels and anemia. He had an infliximab trough level drawn yesterday which was low at <1mcg/mL and it showed anti-drug antibodies present.

- Medication Adherence: DS reports he sometimes has to delay his infusions due to his challenging graduate school schedule.
- Adverse Effects: No significant adverse effects reported with infliximab.

**Plan**:

Given the lack of adequate response to infliximab and the patient's ongoing symptoms, a switch to an interleukin inhibitor (ustekinumab or risankizumab) is considered.

# Discussion Questions

1. What are the main differences between ustekinumab and risankizumab?
2. What are treatment goals for DS?
3. What pre-treatment monitoring would you like to complete before starting DS on ustekinumab or risankizumab?
4. How is ustekinumab administered?
5. How is risankizumab administered?
6. What are the potential side effects of ustekinumab and risankizumab?
7. What factors would you take into consideration when deciding to switch from infliximab infusions to either ustekinumab or risankizumab?

# Multiple Sclerosis (MS) Patient Case

Alexis El-Khouri, PharmD

NASP 2024 Annual Meeting & Expo | Nashville, Tennessee

# MS Patient Case

SM is a 32 yo female presents with bilateral nerve disturbance to hands and forearms that started about a week ago and have not resolved. She previously experienced similar symptoms that resolved to baseline within a day or two and thought it was due to migraines or the stress of unsuccessful attempts at pregnancy. Patient describes symptoms as numb and tingly with occasional shooting pain that waxes and wanes. Symptoms are better than they were a few days ago but are still present. The physical exam was negative for abnormal findings. Electromyography (EMG) was performed and was also negative. MRI of brain and cervical spine were ordered and showed a T2 hyperintense lesion transversing her spinal cord near C5. Lumbar puncture was positive for oligoclonal banding.

**Family history:** Mother- Sjogren's Syndrome; Father- Depression; Maternal Grandmother- Hashimoto's Disease

| Past Medical History | |
|---|---|
| Chronic Migraines | 2011 |
| Generalized Anxiety Disorder | 2012 |
| Irritable Bowel Syndrome w/ Diarrhea (IBS-D) | 2019 |

| Medications |
|---|
| Citalopram 40mg |
| Ajovy 225mg |
| Rizatriptan 10mg |
| Loperamide 2mg |
| Hyoscyamine 0.75mg |

| Laboratory Tests | |
|---|---|
| ANA | 1:40 |
| ESR | 15mm/hr |
| CRP | 0.3mg/L |
| AQP4 | Negative |
| MOG IgG | Negative |
| dsDNA | Negative |

# Discussion Questions

1. What is the most likely diagnosis for SM?
2. What is the most appropriate treatment at this time?
3. What counseling points should you go over with the patient based on treatment selection?
4. The patient feels burdened by how often she needs to administer her medication. Is there a similar alternative that would be less frequent? How often is this administered?
5. The patient presents again after 11 months and is now experiencing new onset right sided visual disturbances described as “spots in her vision” and brain fog. She has a newborn at home and has been getting less sleep lately. MRI is ordered and a new lesion is discovered on her right optic nerve as well as multiple enhancing diffuse lesions in the periventricular white matter. What should be done at this time for acute concerns?
6. What is the new diagnosis and what DMT should be recommended at this time?

# BREAK TIME

2:50-3:05pm


# Clinical Skills Workshop

## Part 2: 3:10-3:55pm

# Rheumatoid Arthritis (RA) Patient Case

Jennifer Cerulli, PharmD, RPh

NASP 2024 Annual Meeting & Expo | Nashville, Tennessee

# RA Patient Case

CJ is a 30 yo female presenting to the rheumatology clinic with a Chief Complaint of fatigue persistent joint pain, swelling, and morning stiffness lasting up to 3 hours despite ongoing treatment with methotrexate 15mg PO once weekly (7.5mg x two, 12 hours apart) with folic acid 1 mg daily for the past 6 months. She has reported increased NSAID use in the past few weeks.

Patient was diagnosed with RA 1 year ago and started on MTX 7.5mg/week titrated to 15mg about 6 months ago.
Social History: Tobacco: never used; Alcohol : 1 drink per week
Physical Examination: Musculoskeletal Examination: joints swelling and tenderness in hands, wrist, feet
Laboratory and Imaging Studies:

- Elevated: Rheumatoid Factor, Anti-Citrullinated Protein (anti-CCP) Antibodies, ESR/CRP
- X-rays of Affected Joints: destruction of the bone at the joint margins with joint space narrowing:

Assessment

- Diagnosis: Rheumatoid Arthritis, currently poorly controlled on current therapy.
- Disease Activity: Based on clinical assessment, laboratory results, and imaging, moderate to high disease activity

**Plan**: Initiate Biologic Therapy: Due to inadequate response to conventional DMARDs, persistent symptoms, and high disease activity, initiation of biologic therapy is warranted.

# Discussion Questions

1. Identify the goals of treatment.
2. Identify possible treatment options.
3. The prescriber decided to begin adalimumab. How does adalimumab work? What is the recommended dosing, administration technique, warnings, and other counseling points.
4. Would CJ be a better candidate for a pen or syringe formulation of adalimumab?
5. One year later, CJ is doing well on Humira® (adalimumab) pen injections 40mg every 14 days. She has switched jobs, and her new insurance carrier covers the biosimilar, Hyrimoz®. What is a biosimilar? How would you describe a biosimilar and the transition to biosimilar for CJ?
6. What are the pharmacists' considerations regarding dispensing of biosimilars and counseling points for CJ?
7. The patient returns in 3 months with a maintained good response on Hyrimoz® and is considering pregnancy. What are next steps for CJ regarding her treatment?

# Osteoporosis Patient Case

Jose Gonzalez,

NASP 2024 Annual Meeting & Expo | Nashville, Tennessee

# Osteoporosis Patient Case

OP is a 72-year-old Caucasian postmenopausal female who presents today as a follow up for the evaluation and management of osteoporosis. OP was diagnosed with osteoporosis 7 years ago and has experienced a hip fracture in 2019. She reports increasing back pain (average - 6/10) over the past 6 months that is localized to the lower back and thoracic spine, described as dull and aching, worsening with movement. Her current medications include atorvastatin 20 mg daily, calcium 1200 mg daily, vitamin D3 2000 IU daily and alendronate 70 mg weekly. Family history is significant for osteoporosis and coronary artery disease.

Diagnosis: Age-related osteoporosis without current pathological fracture (M81.0)

- General: Frail, appears older than stated age, slight kyphosis
- Musculoskeletal: Kyphosis of thoracic spine, tenderness over thoracic and lumbar vertebrae, limited range of motion in the spine, normal muscle strength
- DEXA: T-score: -3.2 (lumbar spine); T-score: -2.8 (hip); T-score: -2.9 (femoral neck); T-score: -3.0 (distal radius); T-score: -2.7 (total body)
- FRAX: Major osteoporotic fracture: 22%; Hip fracture: 12%

**Assessment / Plan:** Recent DEXA shows severe osteoporosis with lowest T-score of 3.2 to lumbar spine and a FRAX score of 22% / 12%. She has failed therapy with alendronate and requires a more aggressive therapy.

# Discussion Questions

1. There are 2 categories for osteoporosis medications. What are they; what is their MOA?
2. Provider wants to start OP on an anabolic therapy as she needs to rapidly build bone. What are the FDA approved anabolic therapies for osteoporosis and which one would you recommend?
3. Provider decides to start OP on Tymlos® (abaloparatide) and has some questions for you. What is the maximum duration of therapy and why? How is the medication stored? How long can a Tymlos pen be used before it needs to be discarded?
4. What is the Tymlos® injection device and how is it administered (what are the injection technique steps)?
5. What are the side effects of Tymlos®? Are there any ways to mitigate these side effects?
6. Are there any non-pharmacological interventions to discuss with OP before starting osteoporosis treatment?
7. After completing 2 years of therapy with Tymlos® (abaloparatide), the provider plans to transition OP to Prolia® (denosumab). What type of therapy is Prolia® and how frequently is it administered?

# GROUP DISCUSSION & WRAP-UP


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# Thank You