

# ARS QUESTION 1

Which medication has a Boxed Warning:

- A. Vedolizumab
- B. Ustekinumab
- C. Risankizumab
- D. Ozanimod
- E. None of the above



#### Which statement is FALSE:

- A. In head to head trial, Vedolizumab has shown superior remission rates compared to adalimumab in UC
- B. Previous biologic failure is associated with lower response rates to ozanimod
- C. Upadacitinib has a boxed warning for PML
- D. In head-to-head trial, Ustekinumab showed similar efficacy to adalimumab in CD



#### **Clinical Case 3**

38-year-old patient has left sided UC with ongoing active disease on 4.8gm mesalamine daily. She is a registered nurse and delivers care to patients who may carry chronic infections. You are considering the next therapeutic option.



# Disclosures

#### **Consultant:**

- AbbVie
- Janssen
- Takeda
- Pfizer
- Eli Lilly
- BMS
- TLL Pharma
- AMT
- Protagonist

#### **Research Grant:**

- AbbVie
- Janssen
- Pfizer
- BMS
- AMT
- Protagonist





# **Positioning Factors to Consider**

#### Individual's risk of IBD based on current and historical disease Safety of Treatment

- Relative to disease
- Relative to other available treatments

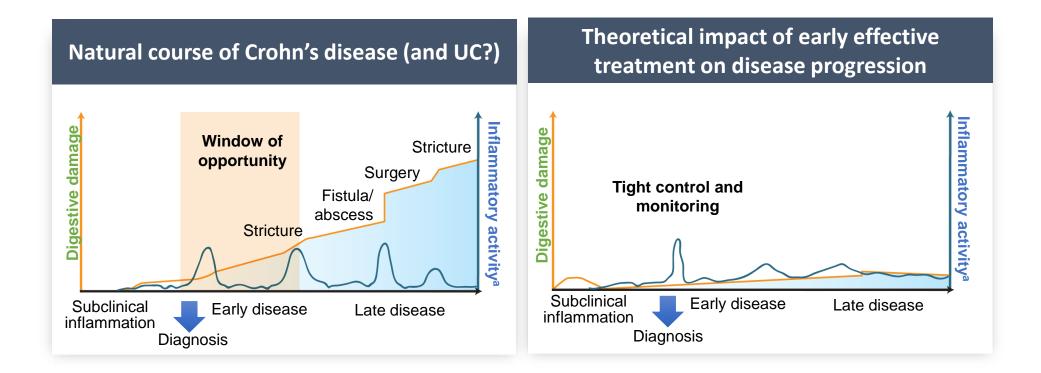
#### Efficacy of treatment

• Comparative efficacy to available therapies

#### Patient specific considerations

- Current disease burden
- Previous medication failures
- Co-morbid illness
- Other ongoing medical therapy
- Contraindications to medications

# **Treating IBD: Why the Urgency?**



<sup>a</sup>Assessed by CDAI, CDEIS, and/or CRP. CDAI, Crohn's Disease Activity Index; CDES, Crohn's Disease Endoscopic Index Severity; CRP, C-reactive protein. Colombel JF et al. *Gastroenterology*. 2017;152:351-361.

### Treatment Strategies for UC Are Driven By Patient Risk of Complicated Disease



IBDH

Limited anatomic extent Mild endoscopic disease



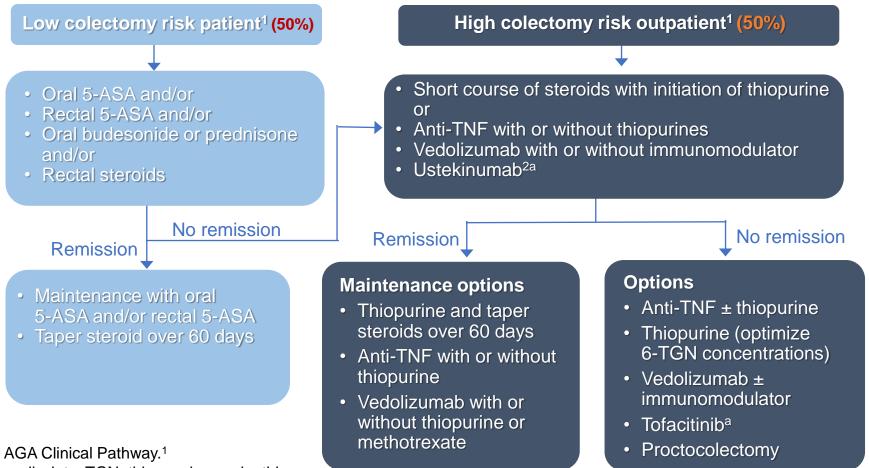
High risk for colectomy

> Age <40 years Extensive colitis Deep ulcers Corticosteroid dependent History of hospitalization High CRP and ESR *C difficile* infection CMV infection

Dassopoulos T, Scherl, E, Schwartz R, Kosinski L, Cohen C, and Regueiro M *Gastroenterology*. 2015;149:238-245.

### **Risk of Colectomy in UC Dictates (first line)** Therapy

AGA Clinical Pathway for Initial Treatment of UC



<sup>a</sup>Adapted from AGA Clinical Pathway.<sup>1</sup>

5-ASA, 5-aminosalicylate; TGN, thioguanine nucleotide.

1. Dassopoulos T, Scherl, E, Schwartz R, Kosinski L, Cohen C, and Requeiro M Gastroenterology. 2015;149:238-245.

2. Sands BE et al. N Engl J Med. 2019;381(13):1201-1214.

### **Relative Risk Assessment**

- Endoscopic severity/ulcer severity
- Biochemical High CRP, Low HCT/HGB, low albumin
- Disease burden Extensive bowel involvement
- Perianal disease

The above are easy clinical parameters to determine need for advanced therapy

# **Relative Safety of IBD Therapies**

# Vedolizumab, Ustekinumab, Risankizumab

- Boxed warning NONE
- Contraindications allergic history to medication
- Clear associated side effects none with statistical sig
- Low infusion and injection reactions

# **Relative Safety of IBD Therapies**

#### S1P

# Ozanimod

- Boxed warning NONE
- **Contraindications** In the last 6 months, experienced myocardial infarction, unstable angina, stroke, transient ischemic attack, decompensated heart failure requiring hospitalization, or Class III or IV heart failure. Presence of Mobitz type II second-degree or third degree atrioventricular (AV) block, sick sinus syndrome, or sino-atrial block, unless the patient has a functioning pacemaker. Severe untreated sleep apnea. Concomitant use of a monoamine oxidase inhibitor. Allergic history to medication
- Common associated side effects liver test increased, upper respiratory infection, and headache

# **Relative Safety of IBD Therapies TNF inhibition**

- **Boxed warning** –SERIOUS INFECTIONS, Increased risk of serious infections leading to hospitalization or death, including tuberculosis (TB), bacterial sepsis, invasive fungal infections (such as histoplasmosis), and infections due to other opportunistic pathogens. Discontinue therapy if a patient develops a serious infection or sepsis during treatment.Perform test for latent TB; if positive, start treatment for TB prior to starting INSERT TNF NAME. Monitor all patients for active TB during treatment, even if initial latent TB test is negative. MALIGNANCY Lymphoma and other malignancies, some fatal, have been reported in children and adolescent patients treated with TNF blockers including. Post-marketing cases of hepatosplenic T-cell lymphoma (HSTCL), a rare type of T-cell lymphoma, have occurred in adolescent and young adults with inflammatory bowel disease treated with TNF blockers including therapy.
- **Contraindications** –Serious infections: Do not start during an active infection. If an infection develops, monitor carefully, and stop If infection becomes serious. Invasive fungal infections: For patients who develop a systemic illness. consider empiric antifungal therapy for those who reside or travel to regions where mycoses are endemic. Malignancies: Incidence of malignancies was greater than in controls Anaphylaxis or serious hypersensitivity reactions may occur Hepatitis B virus reactivation: Monitor HBV carriers during and several months after therapy. If reactivation occurs, stop and begin anti-viral therapy Demyelinating disease: Exacerbation or new onset, may occur. Cytopenias, pancytopenia: Advise patients to seek immediate medical attention if symptoms develop, and consider stopping. Heart failure: Worsening or new onset, may occur. Lupus-like syndrome: Stop therapy if syndrome develops. allergic history to medication
- Clear associated side effects Psoriasis like rash

# **Relative Safety of IBD Therapies**

#### Jak inhibitors – Tofacitinib and Upadacitinib

Boxed warning – Increased risk of death in people 50 years of age and older who have at least 1 heart disease (cardiovascular) risk factor and are taking Tofa 5 mg twice daily or Tofa 10 mg twice daily. Cancer.

**Tofacitinib may increase your risk of certain cancers** by changing the way your immune system works. Lymphoma and other cancers, including skin cancers, can happen. People taking Tofa 5 mg twice daily or Tofa 10 mg twice daily have a higher risk of certain cancers including lymphoma and lung cancer, <u>especially if you are a current or past smoker</u>. Tell your healthcare provider if you have ever had any type of cancer.

**Higher dose.** People with ulcerative colitis taking the higher dose of Tofa (10 mg twice daily) or Tofa XR (22 mg one time each day) have a higher risk of serious infections, shingles, or skin cancers.

**Immune system problem.** Some people who have taken Tofa with certain other medicines to prevent kidney transplant rejection have had a problem with certain white blood cells growing out of control (Epstein Barr Virus–associated post-transplant lymphoproliferative disorder).

Get emergency help right away if you have any symptoms of a heart attack or stroke while taking Tofacitinib, including:

- Contraindications See boxed warning
- Common associated side effects alteration of lipids, risk of shingles

### **Relative Safety of IBD Therapies**

#### Vedo, UST, Risa likely safest to date

No real contraindications except known allergic response

#### S1P (Ozanimod) appears safe

Await long term data, Requires additional monitoring relative to Vedo/UST/RISA

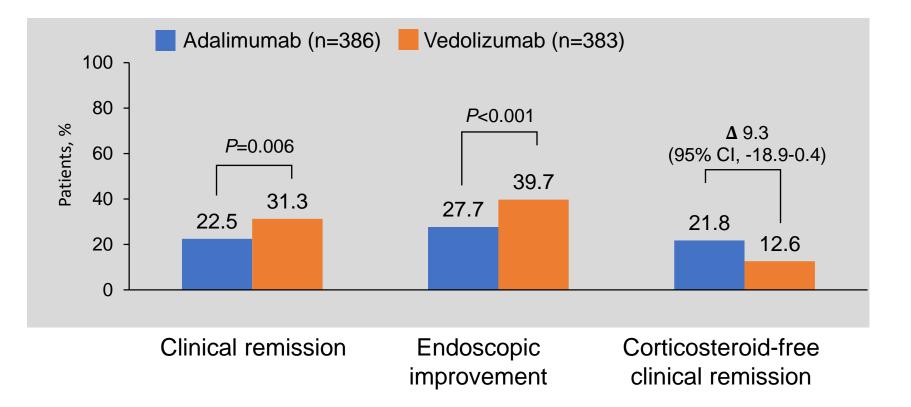
### **ANTI-TNF**

Jaks

# **Relative Efficacy**

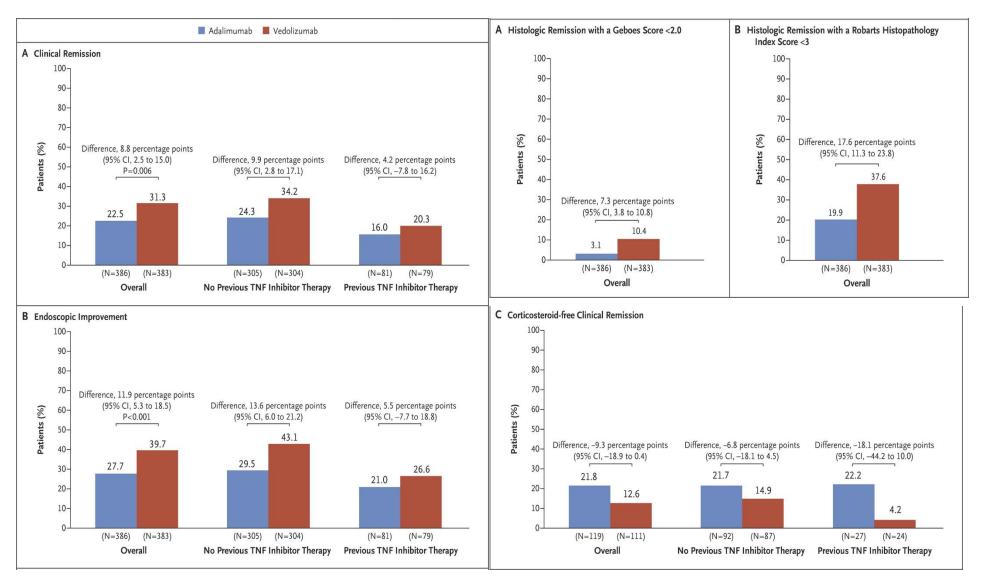
- Only 2 completed head-to-head trials
- More head-to-head trials are coming

#### Adalimumab vs Vedolizumab in Moderate to Severe UC: The VARSITY Trial



Sands BE et al. N Engl J Med. 2019;381:121501226.

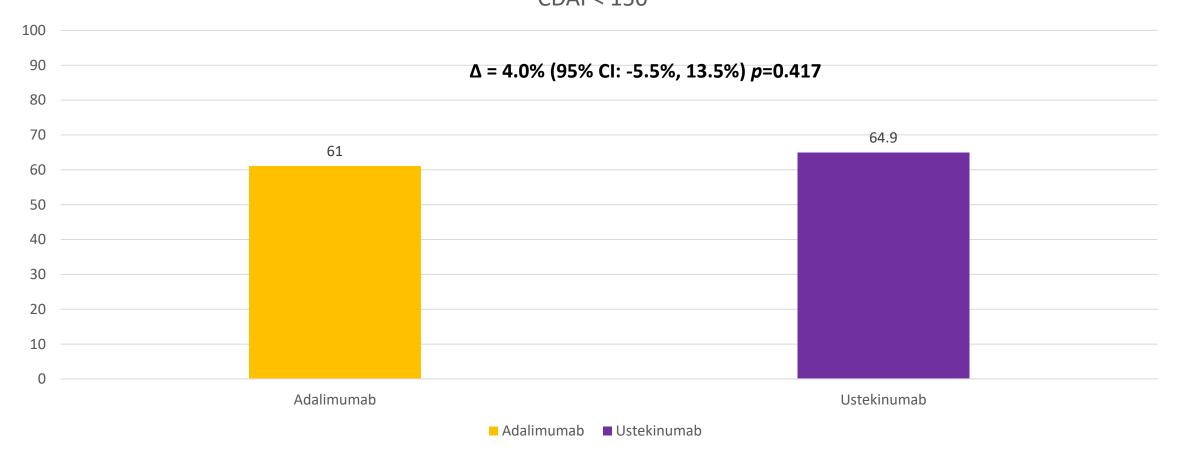
#### VARSITY



Sands BE et al, N Engl J Med 2019

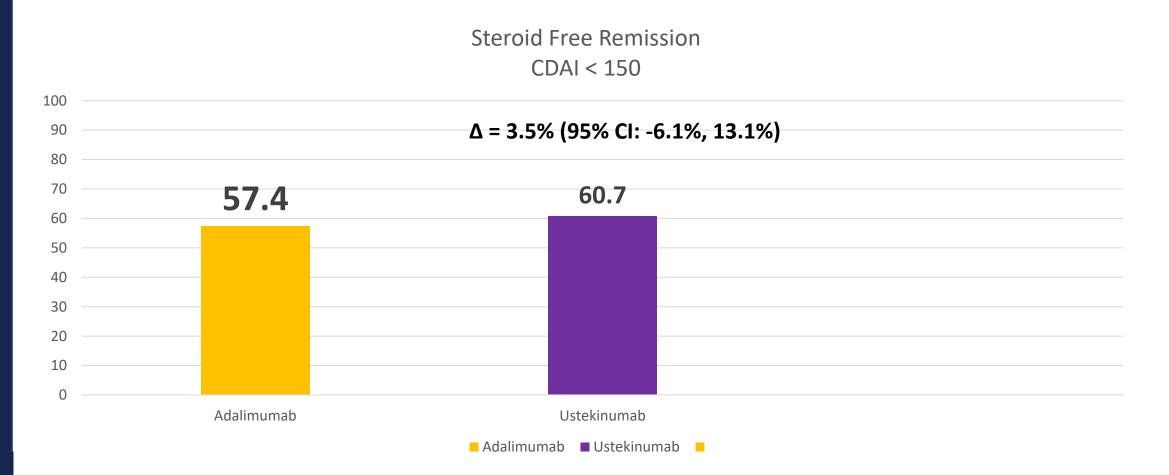
#### Ustekinumab Versus Adalimumab for Induction and Maintenance Therapy in Moderate-to-Severe CD: The SEAVUE Study

linical Remissior CDAI < 150



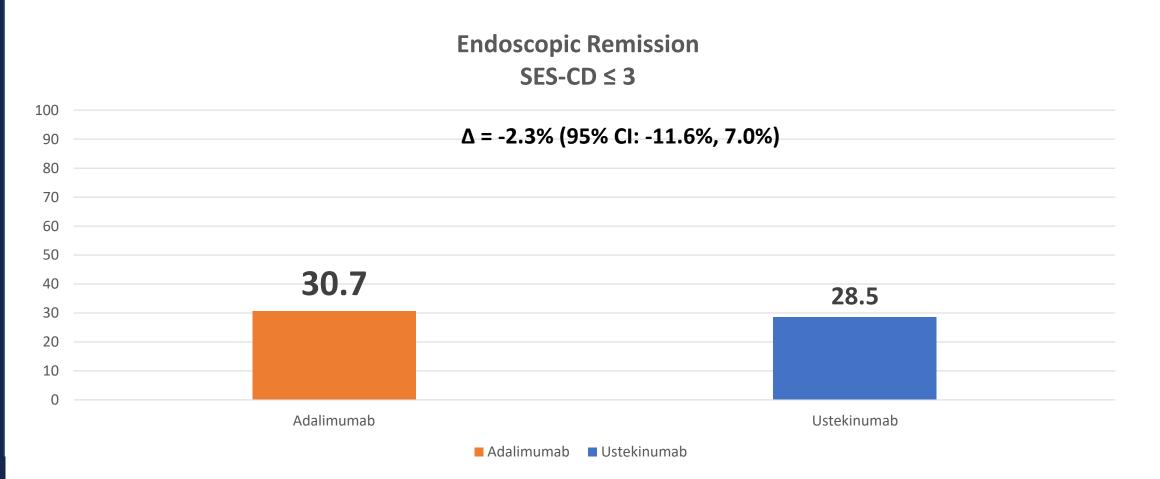
IBDI

#### Ustekinumab Versus Adalimumab for Induction and Maintenance Therapy in Moderate-to-Severe CD The SEAVUE Study



**COMPARATIVE EFFICACY** 

#### Ustekinumab Versus Adalimumab for Induction and Maintenance Therapy in Moderate-to-Severe CD The SEAVUE Study



# **Relative Efficacy**

Even with superior efficacy in head to head other factors or lack there of –safety and other patient factors may be more important (including insurance coverage)

# **Patient Specific Considerations**

Heavy disease burden – fixed dose SQ biologic may not be ideal

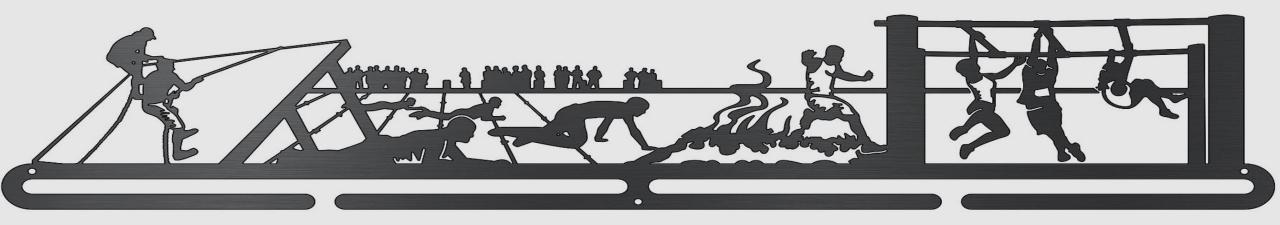
Previous medication failures – TNF failure predicts poor response to all future therapies regardless of MOA

Comorbid illness –

- If RA TNF or Jak to potentially treat 2 disease with 1 MOA
- Psoriasis- consider UST, Risa or TNF
- MS or CHF avoid TNF
- MS consider S1P
- Sig Cardiac disease might avoid JAK and possibly S1P
- Significant smoking avoid JAK

Medical interactions – Possible with small molecules, but few concerns with biologics

# How do I position biologics? The obstacles of starting biologic therapy for IBD



Diagnosing full disease extent and prognosis Discussion of risks and benefits

Prior authorization and coverage

Managing expectations, logistics and adherence

Adapted from Corey Siegel, MD

Biologics & Small Molecules for IBD "Which One based on the scenario" The 'naïve patient' <u>Many insurances require anti-TNF first (FDA note: Tofa only after antiTNF)</u>

#### UC severe (hospitalized or "pending" hospitalization)

• Tofa/Upa (if eligible) vs Infliximab (up to 10mg/kg) with AZA (MTX young males) vs Cyclosporine

#### UC: outpatient moderate/severe (not "impending" hospitalization)

- > 60 years or comorbid cancer/infection or Cardiac: 1<sup>st</sup> Vedolizumab or UST monotherapy
- < 60 years without comorbidity: 1<sup>st</sup> Vedolizumab, UST, Ozanimod

CD:

- > 60 years or comorbid cancer/infection: Vedolizumab, Ustekinumab, Risa monotherapy
- < 60 years without comorbidity: *still* 1<sup>st</sup> Vedolizumab or Ustekinumab, Risa

Biologics & Small Molecules for IBD "Which One based on the scenario" The 'Experienced patient'

Many insurances require anti-TNF first (FDA note: Tofa only after antiTNF)

#### **Treatment history and other considerations**

#### Loss of response to an anti-TNF (if anti-TNF was first):

- Secondary LOR (immunogenicity):
  - LOR to SQ switch to IFX/UST/Tofa/Upa/Vedo
- LOR to IFX switch to Tofa/UPA (if is UC) or UST/Risa or Vedo (note: Failing weight based inflix in general I do not switch from IV to SQ anti-TNF)
- Primary LOR (no antibodies, good levels): switch class to Tofa/UPA(UC) or UST/Risa or Vedo

Biologics & Small Molecules for IBD "Which One based on the scenario" Naïve or experienced

#### **Treatment history and other considerations**

- Secondary to bowel inflammation (peripheral arthritis, iritis, EN): any that heal inflammation will tend to improve arthritis
- Pyoderma gangrenosum, Uveitis, Central Arthritis: anti-TNF/MTX (Ustekinumab/Risa? or Tofa/UPA?)

#### Pregnancy

- Any monoclonal Ab is ok, I treat straight through pregnancy
- *Stop* MTX > 3 mos
- We have very limited data on new small molecules (Tofa/Upa/Ozanimod)
- If anticipating pregnancy in near future consider biologic rather than small molecule

For most patients safety will be most critical

Comparative efficacy (we have limited data and probably should not compare trial results that are not head-to-head studies)

Assess for other specific factors

- Comorbid conditions
- Treatment history
- Disease burden (fixed dose SQ may not be ideal for severe disease)
  - High CRP and Low albumin predict rapid biologic clearance consider small molecules vs well optimized biologic

#### Then of course insurance authorization

For the majority of patients and medications we have no good predictors of response/remission regardless of MOA. So treat early and assess for endoscopic remission

### IBDHorizons

III . REBBERSBER

#### Panel Discussion Moderator: Anita Afzali, MD Scott Lee, MD Gary Lichtenstein, MD Brian Feagan, MD Bincy Abraham, M.D.

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#### **Clinical Case 3**

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