

## Inflammatory Bowel Disease - Management

- Medications Continued:
  - Immune modulators
    - Examples: 6-MP, (Purinethal), Azathioprine (Imuran), Methotrexate
    - Used as second drug to augment the effect of biologic medications and prevent antibody formation (anti-TNF's only)
    - 6-MP and Azathioprine can be used as single agents for both Crohn's and UC. Good for maintenance of remission not good for achieving remission. Bone marrow toxic and risk of Non-Hodgkins lymphoma, infections
    - Methotrexate predominantly used as second agent. Liver is major toxicity, must be avoided in pregnancy, one of few IBD meds that must be avoided in pregnancy.

## Inflammatory Bowel Disease - Management

- Medications-Continued:
  - Biologicals: All antibodies directed against different parts of the inflammatory process to blunt the inflammatory response. All agents due to their being proteins, must be given by injection either IV or sub q to avoid being broken down by the gi tract enzymes.
    - Anti -TNF's: Remicade, Biosimilars, Inflectra, Remsima, Humira, Simponi, Cimzia,
    - Anti - IL 12/23
      - Stelara
      - IL 23 and IL 23 Receptor antagonist
    - Anti - Integrins
      - Tysabri, Entyvio
      - Prevents lymphocyte trafficking into inflamed tissue
      - Entyvio-Gut specific

## Inflammatory Bowel Disease - Management

### • Medications-Continued:

#### • Small Molecules:

#### • JAK Kinase Inhibitors:

#### • Xeljanz

- Pan JAK Kinase Inhibitor
- Indicated in UC
- Works rapidly, first week, UC only
- Oral agent
- FDA Black Box Warning: PE's and Death
  - RA Phase IV, over 50, Cardiac Risk Factor, 10 mg bid
- Avoid in pregnancy

## Inflammatory Bowel Disease - Management

### **Ulcerative Colitis**

- Remicade
- Humira
- Simponi
- Stelara
- Entyvio
- Xeljanz

### **Crohn's Disease**

- Remicade
- Humira
- Cimzia
- Stelara
- Entyvio

## Inflammatory Bowel Disease - Management

- Medications-Continued
  - Biologicals
    - All biologics being foreign proteins can induce antibodies against themselves. When that happens drug concentration goes down and risk of reaction goes up. Less of an issue with Stelara and Entyvio. Thus may be used with an immune modulator.
    - Infections are a potential downside: PML, Hepatitis B, Zoster
    - Risks of lymphoma and both melanoma and non melanoma skin cancer
    - With the exception of Cimza, may attempt to alter dose timing late in pregnancy as all the others cross the placenta and the baby gets an increased or step up dose of the drug. We try to arrange dosing so that the baby is delivered as close to the trough as possible as long as the mother is in remission. Remember pregnancy is an immune tolerant time of life.

## Inflammatory Bowel Disease - Management

Bottom line:

1. Treat to target
2. Treat to remission
3. Do we always achieve 2? No, but we treat as close as we can to target.
4. Symptoms do not always correlate with disease activity so once a management strategy is instituted, a reassessment needs to be undertaken to assess efficacy of the management.

## Inflammatory Bowel Disease - Management

- Surgery
  - UC
    - Total proctocolectomy with permanent ileostomy
    - Total Colectomy with continent ileostomy: Koch Pouch
    - Total proctocolectomy with III staged procedures, possibly II stages
      - Stage I: abdominal colectomy, Ileostomy
      - Stage II: creation of J pouch
      - Stage III: Closure of ileostomy
  - Can trade one problem for another with J-pouch, can have as much as a 50% incidence of pouchitis.

## Inflammatory Bowel Disease - Management

- Surgery:
  - Crohn's Disease
    - Surgery is performed to address complications of the disease including stricture, perforation, abscess as well as refractory disease, growth failure.
    - Surgery is not curative but certainly helpful
    - In strictures, currently, we do not have medications that can treat scar, fibrosis.
    - Try to avoid J pouch surgery in Crohn's Colitis although a proportion of these patients may not have proximal recurrence.
    - Limited length of small intestine so can perform stricturoplasties

## Ostomies in the US

- 1,000,000 in US
- Relatively equally divided between Ileostomies, Colostomies and Urinary Stomas

## Terms to know

- There are many types of human coronaviruses
- Some may cause mild respiratory illnesses
- **Definition from Center for Disease Control (CDC):**
- COVID-19 is a new disease, caused by a novel (or new) coronavirus that has not previously been seen in humans.
- **COVID-19** (coronavirus disease 2019): the disease that is seen in human hosts.
- **SARS-CoV-2** (severe acute respiratory syndrome coronavirus 2): the virus that causes the COVID-19 disease.



## COVID-19

### General precautions and prevention



- 

Wash hands frequently (20 seconds).  
Use hand sanitizer (at least 60% alcohol).
- 

Telecommute (if possible)  
Stay home if sick.
- 

Wear a face mask.
- 


Practice social distancing  
Minimum of 6 feet apart
- 

Keep surfaces and commonly used  
spaces clean.  
Safe products can be found here:  
<https://www.epa.gov/pesticide-registration/list-n-disinfectant-use-against-sars-cov-2>
- 

Cover your cough or sneeze  
Throw away used tissues.  
Avoid touching your face.

### Medications and Immune Suppressing Drugs

- In IBD, the immune system is overactive
  - The body cannot control (regulate) this overactivity
- This causes inflammation in the bowel
- Some medications are aimed at modifying the immune response that causes inflammation
- Goal of medication is to help the body get the inflammation under control
- Some medications for IBD may increase the risk of infections, others are potentially protective



## CCF, IOIBD International, Covid IBD Registry

- Began in March 2020
- Voluntary Reporting of Documented Cases
- 2364 patients, 60 Countries
  - Data as of 9/15/2020
  - USA: 936, Spain: 271, Russian Fed: 136, France: 106
    - NY: 215
    - IL: 58
    - CA: 45
    - FL 41
- Stratified for Medication and Adverse Outcome
  - Adverse outcomes included:
    - ICU Admission
    - Ventilator
    - Death

### Adverse Outcome overall rate 7%

\* indicates over 700 patients in the group

# indicates less than 100 patients in group

• Medication	• % Adverse Outcome
• Steroids	• 19
• Mesalamine*	• 10*
• Budesonide#	• 10#
• 6MP/Aza	• 9
• Methotrexate#	• 5#
• Anti-Tnf's*	• 2*
• Anti-Tnf + IM	• 5
• Anti-Integrin	• 8
• IL 12/23	• 3
• JAK Kinase#	• 6#