DRUG SAFETY

- Vedolizumab
  - <0.6% risk of serious infections
  - No cases of PML
  - <1% risk of malignancy

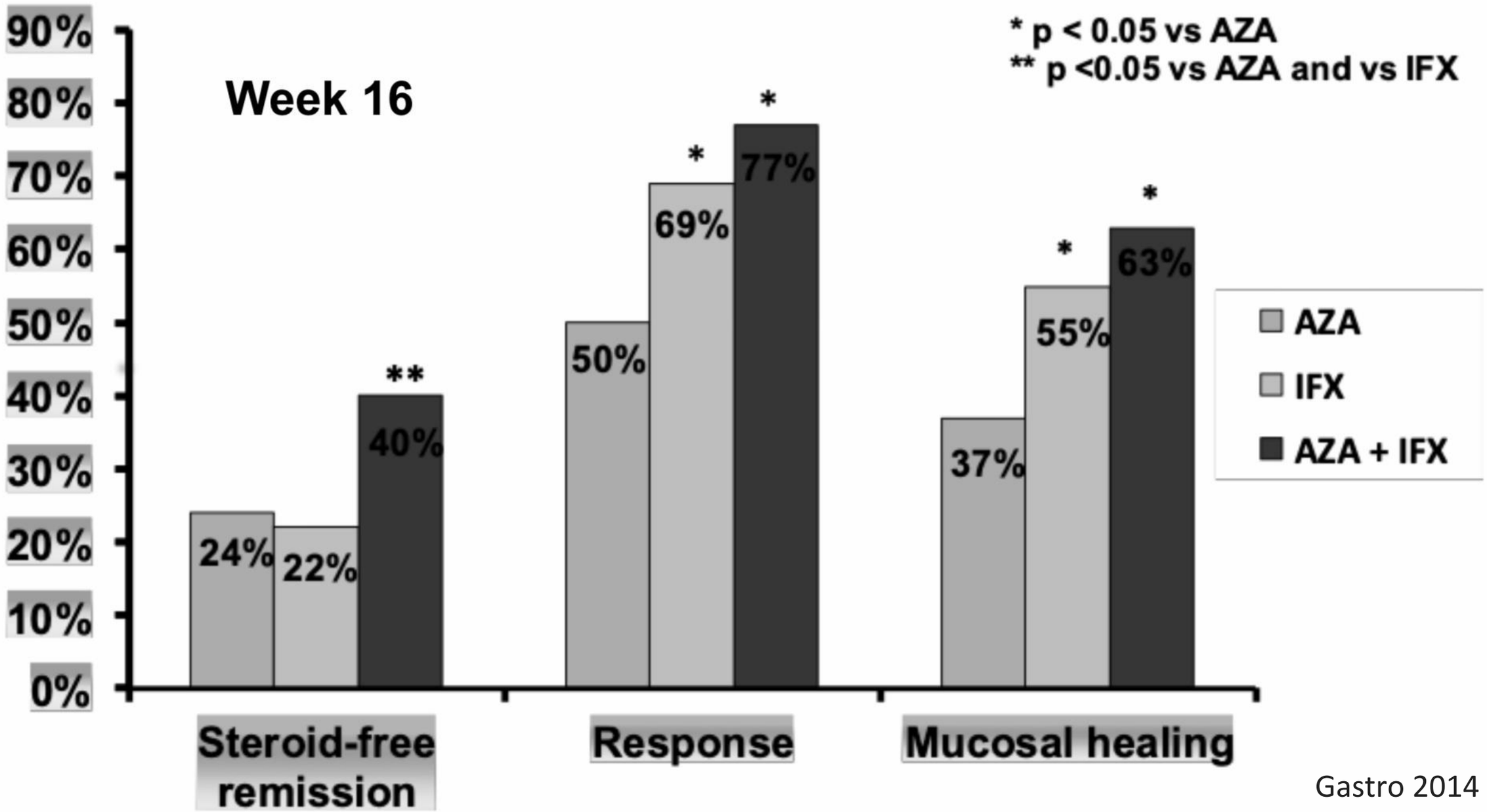
Gut 2017

DRUG SAFETY

- Tofacitinib
  - Herpes Zoster
  - Serious infection
  - Non-melanoma skin cancer
  - Increase HDL/LDL
  - PE

UC SUCCESS

Combo Vs. Monotherapy in Mod to Severe UC



Gastro 2014

IFX+AZA better than IFX or AZA monotherapy in inducing steroid free remission

IMMUNE MODULATORS

- MTX, 6-MP, Azathioprine
- Trend in using in combination instead as monotherapy
- Reduce antibody formation to anti-TNF drugs
- Main driver in the lymphoma risk
  - Higher risk in males <30 or >50
  - Risk does not persist after discontinuation
  - Consider temporary use in combination (1 year)

Clinical Gastro Hep 2015

CROHN’S DISEASE

CROHNS DISEASE

- Chronic idiopathic inflammatory condition
- Hallmark symptoms:
  - Abdominal pain, diarrhea, fatigue
  - Others: weight loss, failure to thrive, anemia, fistulas or extraintestinal manifestations
- Progressive and destructive

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CROHN'S DISEASE

- 50% develop intestinal complications within 20 yr of dx
- Symptoms do NOT correlate with disease activity
- 25% perianal dz
- 80% require hospitalization at some point
- 10 yr risk of surgery 30-55%

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CROHN'S DISEASE

- Classify disease
  - Location
  - Disease behavior

CROHN'S DISEASE

- Disease location:
  - Ileal
  - Colonic
  - Ileocolonic
  - Upper

DISEASE BEHAVIOR

- Inflammatory
  - Abdominal pain
  - Fever
  - Diarrhea
  - Responds best to medical therapy

DISEASE BEHAVIOR

- Stricturing:
  - Post-prandial pain
  - Vomiting
  - Weight loss
  - Higher likelihood of needing surgery

DISEASE BEHAVIOR

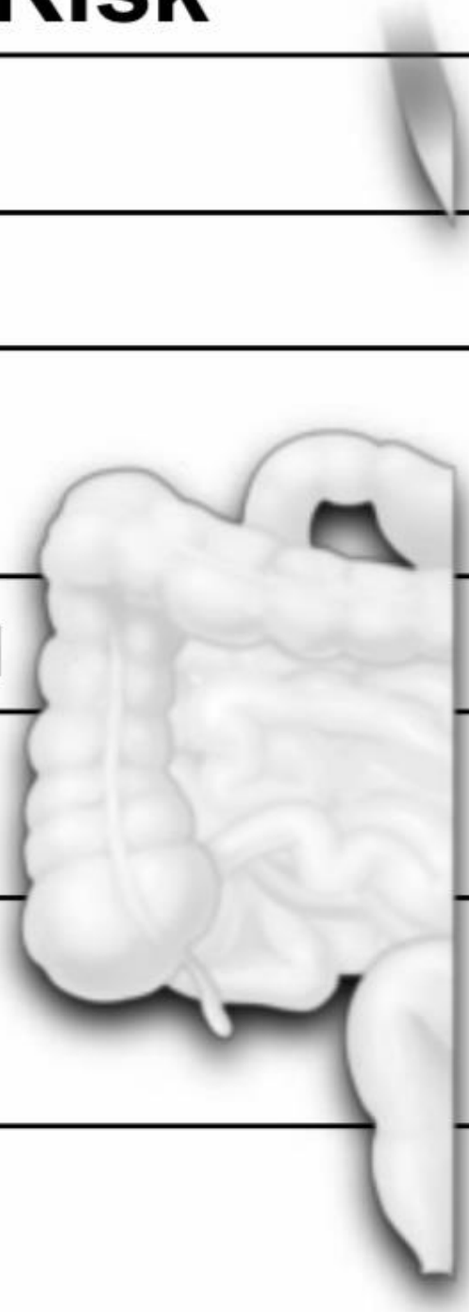
- Penetrating:
  - Aggressive disease
  - Often needs surgery
- Fistulas — enteroenteric, rectovaginal, enterocutaneous, retroperitoneal

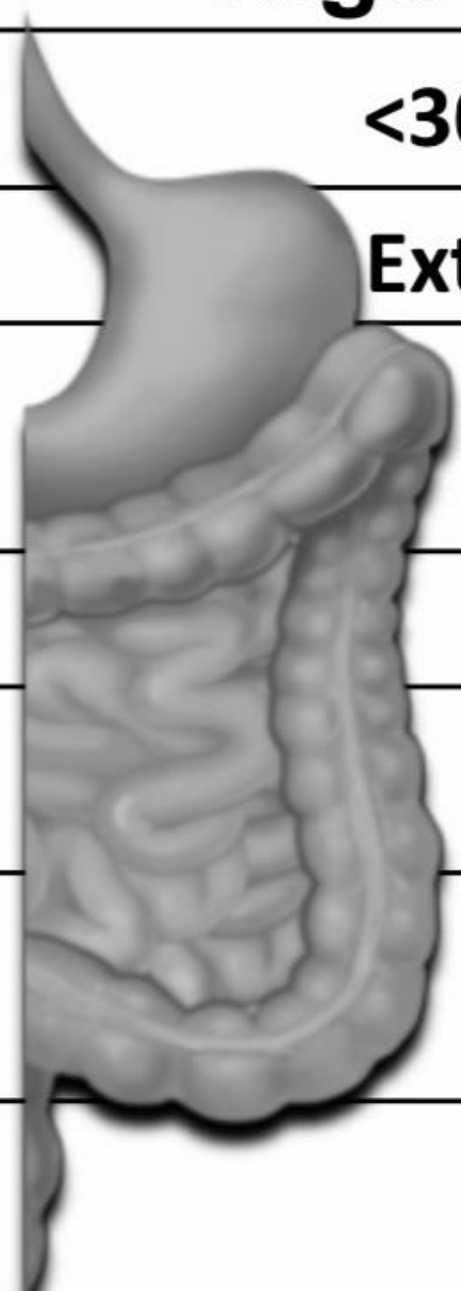
DISEASE BEHAVIOR

- Perianal disease:
  - Aggressive form of disease
  - Symptoms: painful defecation, bleeding, drainage, rectal pain

RISK STRATIFY

Low-Risk		High-Risk
>30 years	**Age at diagnosis**	**<30 years**
Limited	**Anatomic involvement**	**Extensive**
No	**Perianal and/or severe rectal disease**	**Yes**
Superficial	**Ulcers**	**Deep**
No	**Prior surgical resection**	**Yes**
No	**Stricturing and/or penetrating behavior**	**Yes**





TREATMENT

- Modifiable factors:
  - NSAIDs
    - Can exacerbate disease activity
    - Avoid if possible
- Cigarette smoking
  - Exacerbates disease activity
  - Accelerates disease recurrence

TREATMENT

- Treatments to AVOID:
  - Mesalamine should be avoided in Crohn’s dz
  - Antibiotics (Cipro/Flagyl) should not be use in luminal disease for remission

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TREATMENT

- Low Risk:
  - Sulfasalazine for colonic disease
  - Ileal release budesonide for ileal disease
- Other potential options:
  - Observation
  - Symptomatic treatment

TREATMENT - INDUCTION

- High risk:
  - Steroids
  - MTX, 6-MP, Azathiopurine — No role for induction
- No better than placebo

TREATMENT - MAINTENANCE

- Anti-TNF
  - Infliximab, Adalimumab, Certolizumab
    - Combo trx better than monotherapy in Naive patients
- Anti Integrin
  - Vedolizumab — with or without combo therapy
- Anti IL-12/23
  - Ustekimumab — with or without combo therapy

AJG 2018
NEJM 2010

SURGICAL INDICATIONS

- Life threatening hemorrhage
- Perforation
- Stricturing disease
- Medically refractory disease

POST OPERATIVE CROHN'S DISEASE

- Risk of recurrence
  - High:
    - <30 y/o
    - 2 previous surgeries
    - Penetrating dz
    - Smoker
  - Low:
    - >50 y/o
    - First surgery for short stenosis (<10-20 cm)
    - Nonsmoker
    - Dz duration >10 years

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POST-OPERATIVE CROHN'S

- Early treatment favored
  - Within 8 weeks
  - Treat with anti-TNF and/or azathiopurine
- Avoid mesalamine
- For low risk recurrence - could consider endoscopy guided trx

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POST-OPERATIVE CROHN'S

- Repeat endoscopy at 6-12 months
- Guides trx decisions
  - Those on trx — change needed?
  - Those not on trx — add trx?

POST-OPERATIVE CROHN'S

ENDOSCOPIC RECURRENCE SCORE

- Low risk post-operative recurrence
  - i0: no lesions
  - i1: <5 aphthous lesions
- High risk post-operative recurrence
  - i2: >5 aphthous lesions with normal intervening mucosa
  - i3: diffuse aphthous ileitis with inflamed mucosa
  - i4: Diffuse inflammation with large ulcers, nodules, and/or narrowing

Rutgeerts et al Gastro: 1990

POST-OPERATIVE CROHN'S

- Continued endoscopic monitoring every 1-3 years
- Recurrence is common:
  - Endoscopic: 70-90% at 1 year
  - Symptomatic: 30% at 3 years
- Smoking is the ONLY modifiable risk factor

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IBD IN PREGNANCY

PREGNANCY

- Important to have a plan
- Risks:
  - Miscarriage
  - Small for gestational age baby
  - Premature delivery
  - Poor maternal weight gain
  - Complications of L&D (preeclampsia, abruption, need for C-section

Gastro 2019.

PREGNANCY

- Multidisciplinary approach
  - GI
  - MFM
  - Nutrition
  - Colorectal surgery

Gastro 2019.

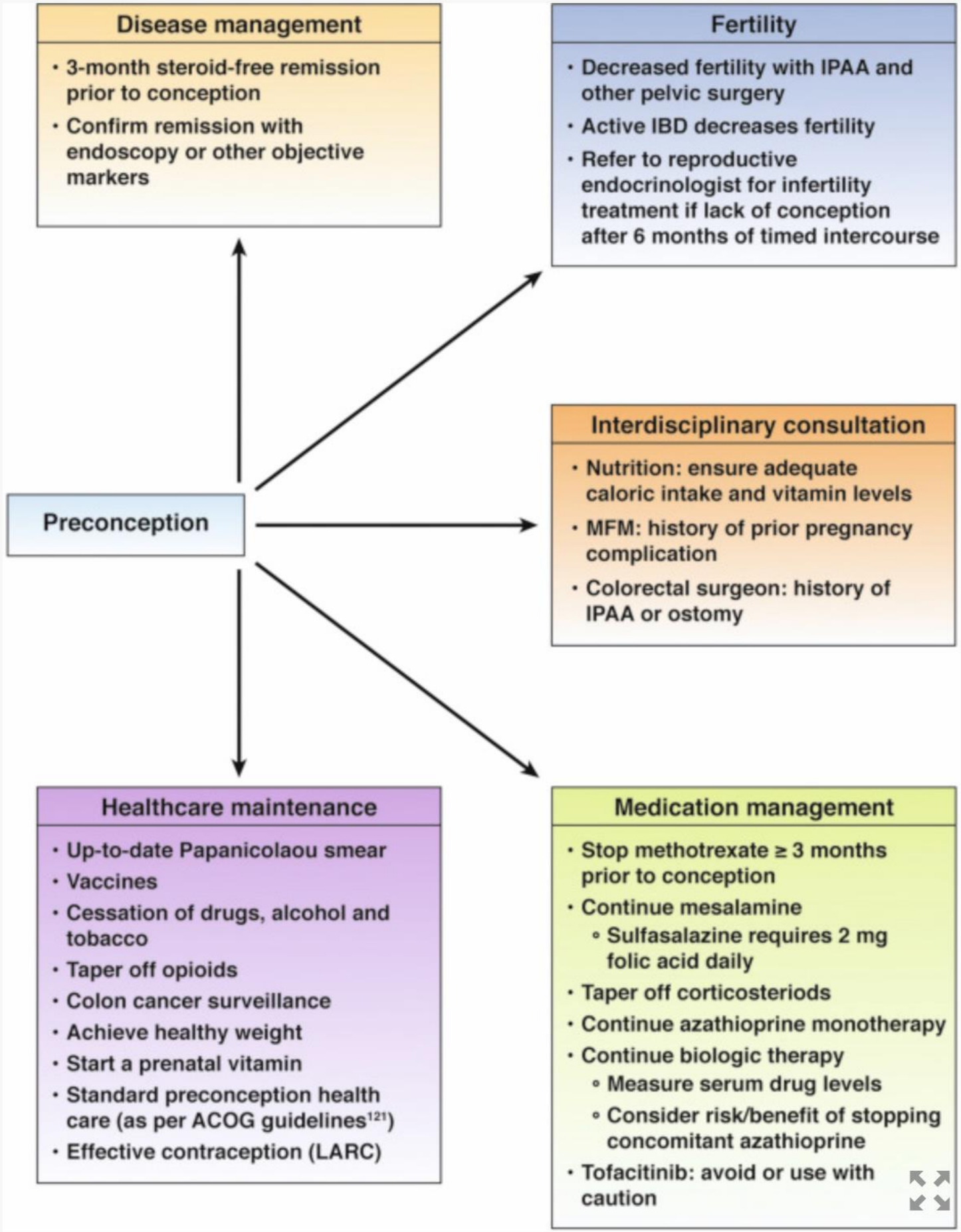
PREGNANCY

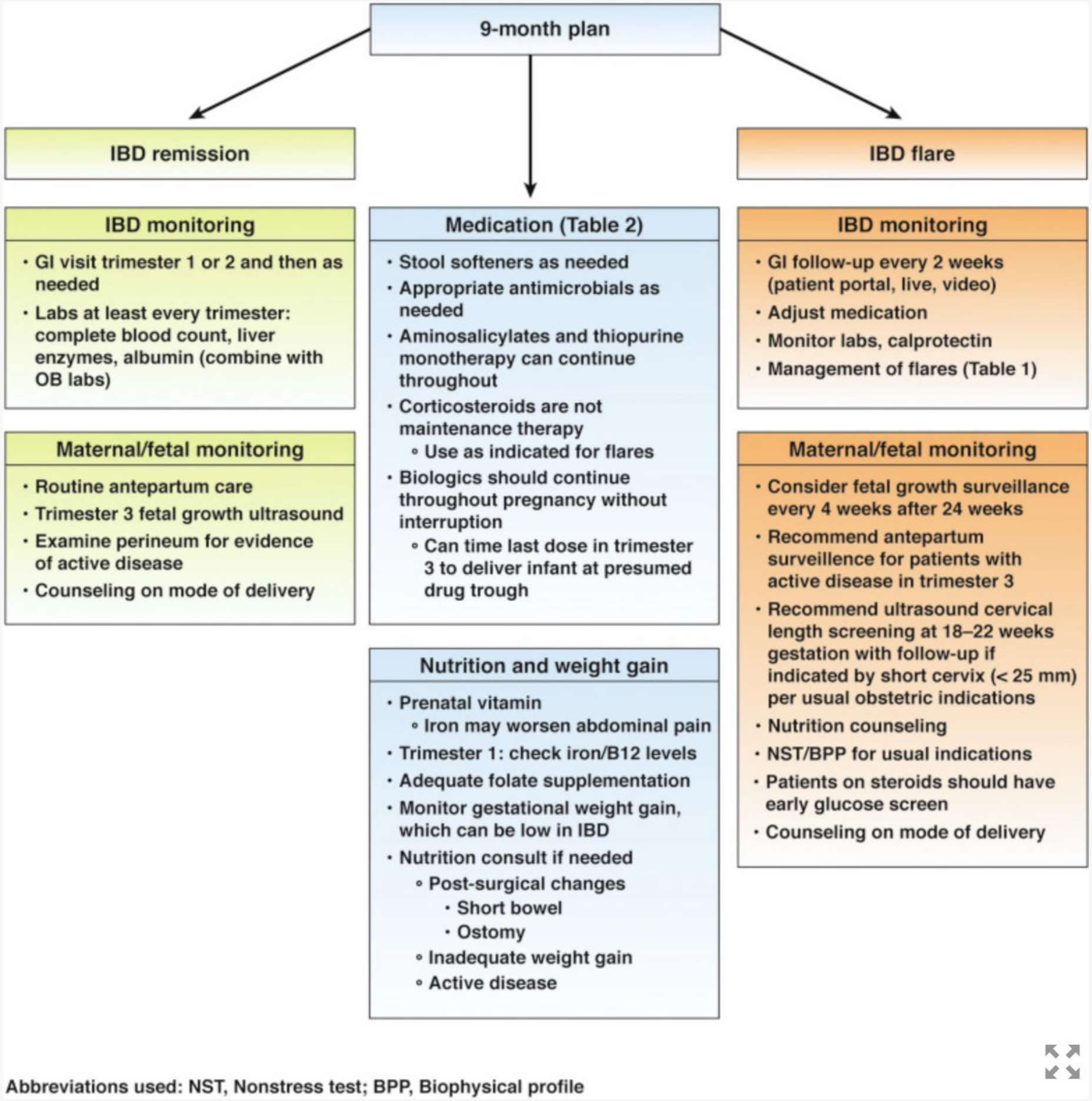
- Steroid free remission for 3 months prior to conception
- Off Methotrexate for 3 months prior to conception
- Continue maintenance medications throughout pregnancy
  - Flare associated with adverse outcomes
- Time Anti-Tnf dose for trough at delivery
- Continue meds with breast feeding
  - Exceptions: tofacitinib, methotrexate

Gastro 2019

PREGNANCY

- Mode of delivery:
  - discretion of OB
  - Active perianal dz — will need c-section
- Vaccines:
  - All given on schedule
  - Exception: avoid live vaccines for 6 months with in utero biologic exposure


Disease management
• 3-month steroid-free remission prior to conception
• Confirm remission with endoscopy or other objective markers
Fertility
• Decreased fertility with IPAA and other pelvic surgery
• Active IBD decreases fertility
• Refer to reproductive endocrinologist for infertility treatment if lack of conception after 6 months of timed intercourse
Preconception
Interdisciplinary consultation
• Nutrition: ensure adequate caloric intake and vitamin levels
• MFM: history of prior pregnancy complication
• Colorectal surgeon: history of IPAA or ostomy
Healthcare maintenance
• Up-to-date Papanicolaou smear
• Vaccines
• Cessation of drugs, alcohol and tobacco
• Taper off opioids
• Colon cancer surveillance
• Achieve healthy weight
• Start a prenatal vitamin
• Standard preconception health care (as per ACOG guidelines[121])
• Effective contraception (LARC)
Medication management
• Stop methotrexate ≥ 3 months prior to conception
• Continue mesalamine
◦ Sulfasalazine requires 2 mg folic acid daily
• Taper off corticosteriods
• Continue azathioprine monotherapy
• Continue biologic therapy
◦ Measure serum drug levels
◦ Consider risk/benefit of stopping concomitant azathioprine
• Tofacitinib: avoid or use with caution



Abbreviations used: NST, Nonstress test; BPP, Biophysical profile

HEALTH
MAINTENANCE

PREVENTATIVE CARE

- Administer routine vaccines when indicated
- Influenza vaccine — all patients with IBD
- Pneumococcal — adult with IBD on immune suppressants
  - Booster 5 years later
- Zoster — adults with IBD >50 y/o
  - Before starting anti-TNF

AJG 2017.

PREVENTATIVE CARE

- Women with IBD on immunosuppressants:
  - annual cervical cancer screening
- Skin:
  - Annual Derm exam — Melanoma, NMSC (immune suppressed)

AJG 2017.

cornerstonehealth.org

PREVENTATIVE CARE

- Bone health:
  - BMD testing:
    - Steroid use >3 months
    - Past steroid use of 1 year in past 2 years
    - Maternal hx of osteoporosis
    - Malnourished/thin
    - Post menopausal regardless of dz status

AJG 2017

cornerstonehealth.org

PREVENTATIVE CARE

- All patients:
  - Screen for anxiety/depression
    - More common in IBD than general pop
    - Can impact dz course
  - Smoking cessation
    - Associated with development of dz
    - Disease progression
    - Poor medical/surgical outcomes

AJG 2017.

EMERGING THERAPIES

- UC:
  - Ustekinumab — currently approved for CD
  - Hyperbaric O2
- CD:
  - JAK inhibitors - Filgotinib, Upadacitinib
  - Sphingosine 1 phosphate receptor 1 (S1P1) modulators
    - Inhibits T-cells from leaving lymph nodes
    - Ozanimod, Etrasimod, Amiselimod

QUESTIONS?