

IBD RISK STRATIFICATION & SELECTING THE IDEAL INITIAL THERAPY



ARS QUESTION 1

Which of the following is **NOT** a predictor of disabling Crohn's disease course?

- A. Multiple steroid courses
- B. Recurrent perianal disease
- C. Prior intestinal resection
- D. Cannabis exposure

ARS QUESTION 2

All are associated with higher risk of colectomy in UC EXCEPT:

- A. History of Campylobacteria infection
- B. Pancolitis
- C. Need for steroids
- D. Hospitalization

CLINICAL CASE 1



45-year-old male with newly diagnosed Crohn's disease, with mild abdominal pain and normal inflammatory markers. BMI is 32 kg/m² and is actively smoking. Colonoscopy showed small perianal fistula and large ileal ulcerations with no stricture, colon otherwise normal mucosa.

IBD Risk Stratification & Selecting the Ideal Initial Therapy

Kindra Clark-Snustad, DNP



**KINDRA
CLARK-SNUSTAD**

Kindra Clark-Snustad is a board certified nurse practitioner with a clinical focus on inflammatory bowel disease (IBD).

She works as a nurse practitioner at the University of Washington, Digestive Health Center, Inflammatory Bowel Disease Clinic, caring for patients with Crohn's disease and ulcerative colitis.

Kindra is an investigator at the University of Washington, IBD Research Program, assisting with clinical trials and investigator initiated studies.

DISCLOSURE

Advisor

- BMS, AbbVie, Takeda, Pfizer

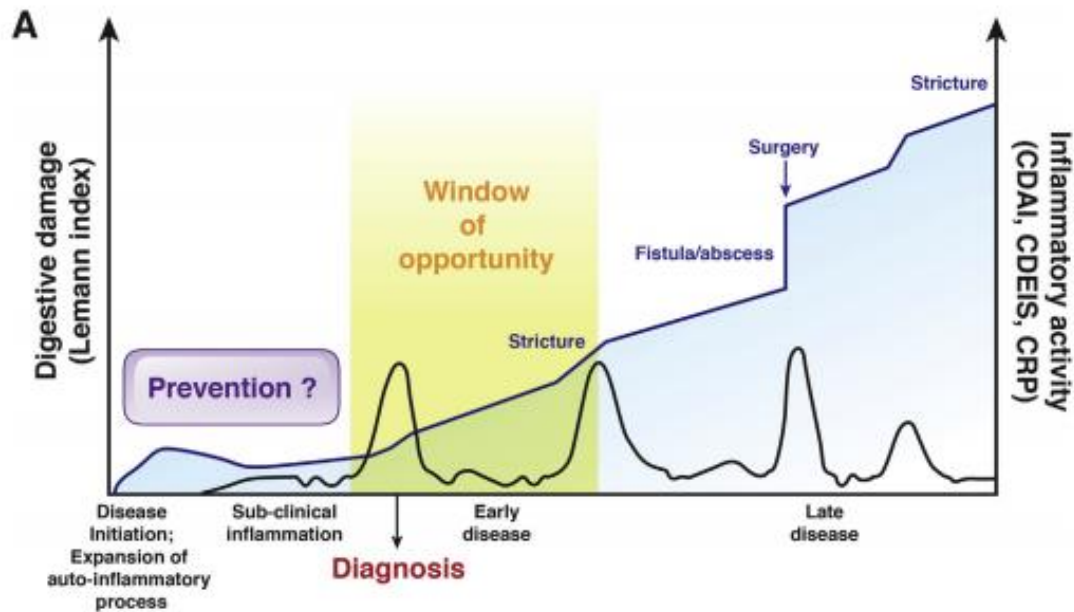
Objectives

- Prognostic factors for IBD course
- Tools for IBD risk stratification at diagnosis
- Predictors of therapeutic response
- Clinical impact of risk stratification on selecting initial IBD therapy or management approach

Natural disease course

CD

UC



- Risk of colectomy
 - 24% after 10 years, ~30% after 20 years
- Risk of colorectal cancer
- Long term structural & functional issues
 - Proximal extension
 - Stricturing
 - Pseudopolyps
 - Dysmotility
 - Anorectal dysfunction

(Langholz, Munkholm et al. 1994; Torres, Billioud et al. 2012; Colombel, Narula et al. 2017)

Disease activity vs severity

Activity

- *Short term* assessment of current disease
 - Symptoms - HBI, SCCAI
 - Labs - CRP, FC, albumin, hematocrit
 - Endoscopic - SESCD, Mayo score

Severity

- *Long term* assessment of disease characteristics that may predict future disease course
- Should direct therapy decisions to modify risk of disease complications

Symptoms don't always reflect endoscopic disease.

Current picture doesn't always predict risk of long-term complications.

Risk stratify – ulcerative colitis

Low risk

- Limited extent
- Mild endoscopic disease

High risk

- Age of diagnosis <40
- Pancolitis
- Deep ulcers
- Steroid dependent, IV steroids
- Hospitalization
- C. difficile, cytomegalovirus infection

(Sandborn 2014; Agrawal, Spencer et al. 2021; Torres, Mehandru et al. 2017; Rubin, Ananthakrishnan et al. 2019)

Risk stratify – Crohn's disease

Low risk

- Limited extent
- Mild endoscopic disease

High risk

- Age of diagnosis <30
- Extensive disease (extensive ileal, pancolitis)
- Deep ulcers
- Severe rectal disease
- Strictures or fistulas
- Steroid dependent, IV steroids
- Hospitalization
- Smoker

(Sandborn 2014; Agrawal, Spencer et al. 2021; Torres, Mehandru et al. 2017; Rubin, Ananthakrishnan et al. 2019)

Treatment approach

Low risk/mild disease

- Thorough assessment for disease complications/risk factors
- Asymptomatic
 - Consider close monitoring with periodic labs (CRP, FC, albumin, hematocrit) and colonoscopy every 1-2 years
- Mild symptoms
 - Consider steroid (prefer budesonide) for induction of remission
 - Mild ileal CD – taper off steroids and monitor
 - Mild colonic disease – consider 5 ASA maintenance
- Monitor! If not achieving remission, progressive disease, risk factors, or need >1 steroid course every 1-2 years, then advance therapy

High risk/moderate-severe disease

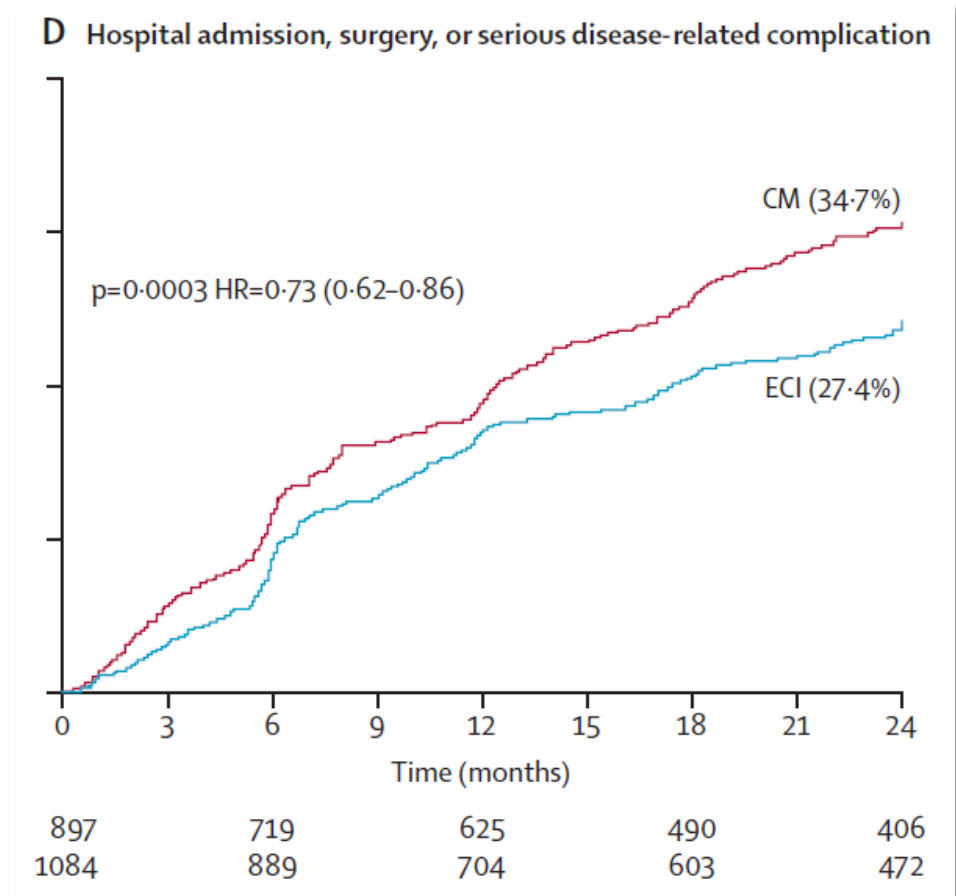
→ early appropriate therapy with biologics or small molecules

(Nguyen, Singh et al. 2020)

REACT trial

- Open-label, cluster randomized controlled trial of 1809 patients with Crohn's disease
- Early combined immunosuppression (ECI) vs. conventional management (CM)
- The 24-month rate of major adverse outcomes (surgery, hospital admissions, or serious disease related complications) was lower in ECI vs. CM
 - 27.4% vs. 34.7% (ARD = 7.3%, HR = 0.73; 95% CI 0.62-0.86; P=0.0003)

(Khanna, Bressler et al. 2015)



Tools for IBD risk stratification

AGA Care Pathways

<https://www.ibd.care/care-navigator/aga-care-pathways>

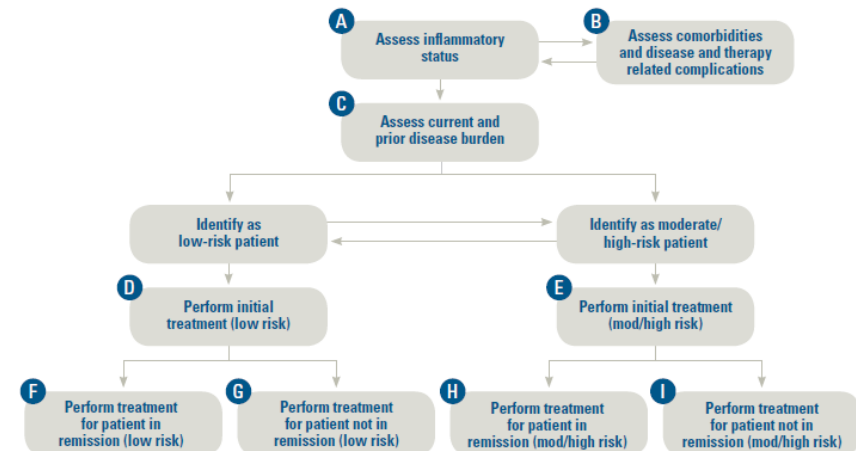
The screenshot shows the AGA Care Pathways tool interface. At the top, there is a navigation bar with icons for HOME, TOOLBOX, EARN CE, and SHARE. Below this is a header for "AGA Care Pathways" with a sub-header "The AGA Care Pathways provide practical tools to help providers risk-stratify their IBD patients into those with low or moderate/high risk disease. This stratification helps identify the best therapy for each patient that will lead to remission or low disease activity!". The main content area features a flowchart starting with "Stratify According to Risk", leading to "Initial Therapy" which is divided into "Low risk patient" and "Moderate/High risk patient". Below this, there are two boxes: "Remission" (green) and "Not in remission or relapse" (dark blue). At the bottom, there are navigation buttons: "← Back: Personalizing IBD Therapy" and "Next: FDA Approved Treatment →".

References: ☆ Save

1. Dassopoulos T, Cohen RD, Scherl EJ, Schwartz RM, Kosinski L, Regueiro MD. Ulcerative Colitis Care Pathway. *Gastroenterology*. 2015;149(1):238-245.
2. Sandborn WJ. Crohn's disease evaluation and treatment: Clinical decision tool. *Gastroenterology*. 2014;147(3):702-703.
3. Peyrin-Biroulet L, Sandborn W, Sands BE, et al. Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE): Determining Therapeutic Goals for Treat-to-Target. *Am J Gastroenterol*. 2015;110(9):1324-1338.
4. Feuerstein JD, Nguyen GC, Kupfer SS, et al. American Gastroenterological Association Institute Guideline on Therapeutic Drug Monitoring in Inflammatory Bowel Disease. *Gastroenterology*. 2017;153(3):827-834.

AGA Clinical Decision Support Tool for CD (Sandborn 2014)

AGA INSTITUTE GUIDELINES FOR THE Identification, Assessment and Initial Medical Treatment in Crohn's Disease CLINICAL DECISION SUPPORT TOOL



Predictors of response to therapy

- Characteristics associated with poor response are common across biologics. These may be more predictive of difficult to treat IBD.
 - More severe disease, higher inflammatory burden
 - Prior surgery, complications
 - Prior TNF exposure, low biologic trough levels
- High CRP and low albumin predict rapid biologic clearance
 - Consider small molecule or optimized biologic
- Comparative trials
 - No trials evaluate optimal sequence of all available therapy
 - Network metaanalyses – indirect comparison
 - Head-to-head randomized controlled trials
- Insurance plays a significant role

(Singh, Murad et al. 2020; Singh, Fumery et al. 2018; Nguyen, Singh et al. 2020)

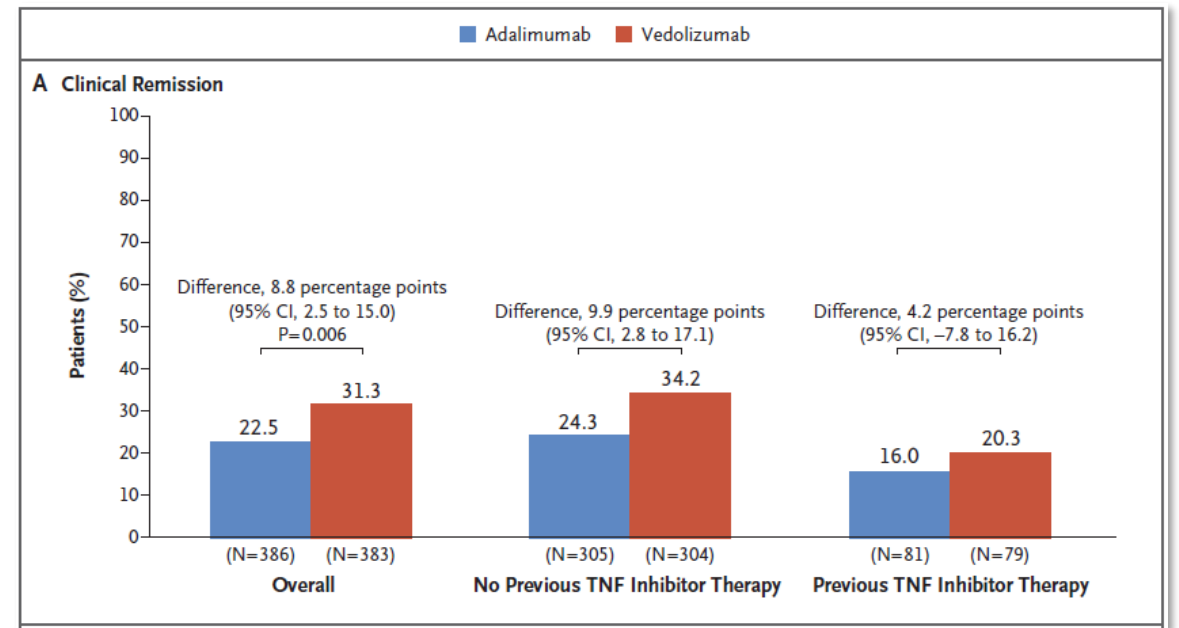
Head-to-head - VARSITY

Methods

- 3b double blind, randomized controlled trial comparing vedolizumab vs adalimumab
- 769 patients with mod-severe UC
- 25% of patients had prior TNF exposure
- Dose escalation was not permitted

Results

- At week 52, statistically more patients on vedolizumab achieved
 - clinical remission (31.3% vs. 22.5%; P = 0.006)
 - endoscopic improvement (39.7% vs 27.7%; p <.001)



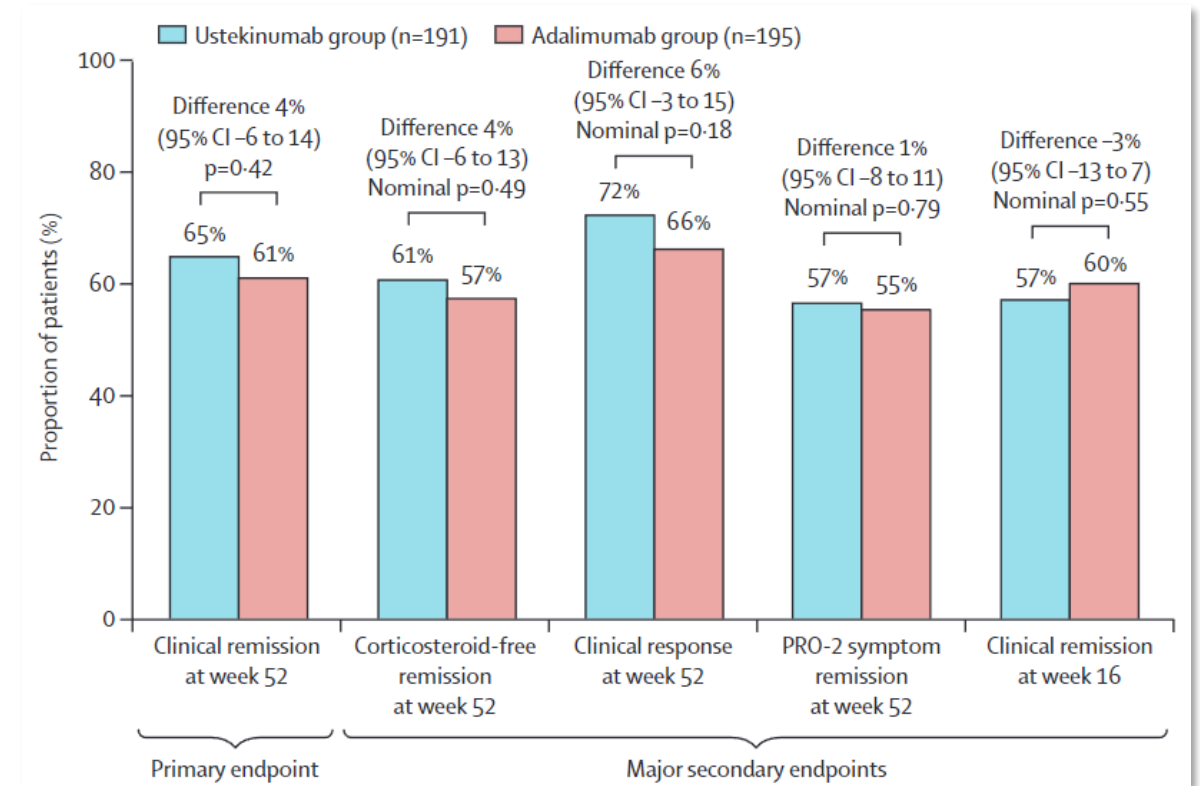
Head-to-head - SEAVUE

Methods

- 3b double blind, randomized controlled trial comparing ustekinumab and adalimumab
- 386 biologic naïve patients with CD
- Monotherapy, no dose optimization

Results

- At week 52 there were no significant differences in clinical remission
- ustekinumab may be safer



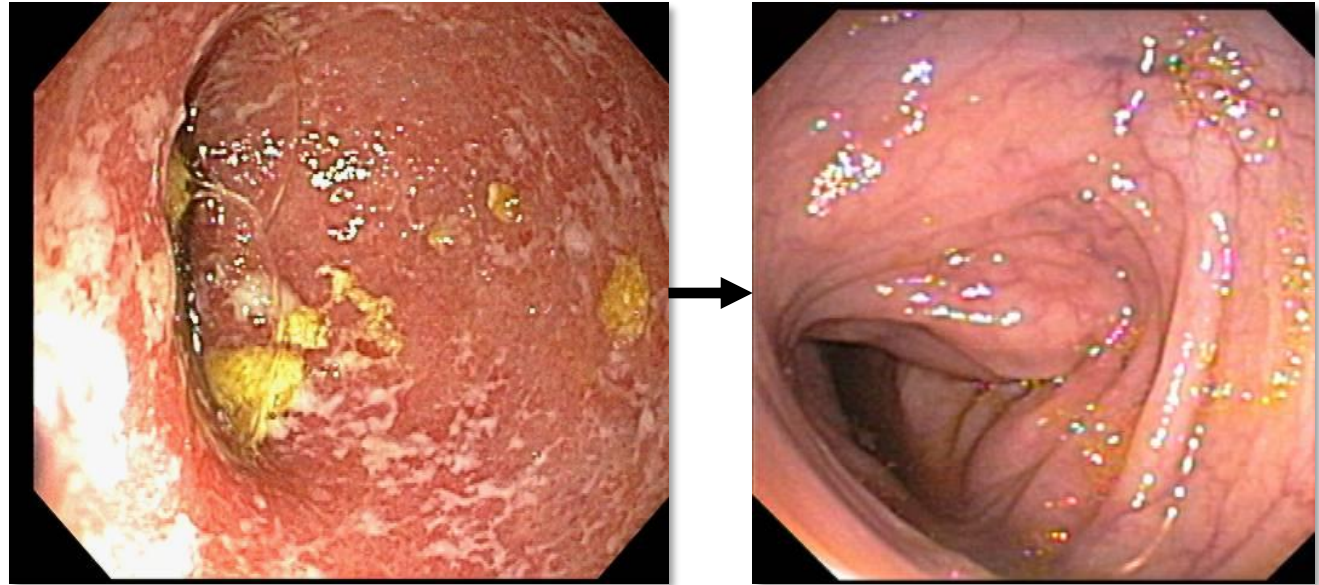
Therapy considerations for high-risk patients

	Safety	Comorbid autoimmune disease	OK in pregnancy?	Efficacy	Route	Antibody risk
IL 12/23 ustekinumab IL 23 risankizumab	Likely safer	Treats psoriasis and psoriatic arthritis	Yes	SEAVUE: ustekinumab = adalimumab in CD	IV, then SC	Low
A4β7 vedolizumab	Likely safer	Only treats IBD	Yes	VARSHY: vedolizumab > adalimumab in UC	IV	Low
S1P (UC) ozanimod	Appears safe, await long term data	Treats MS	No		PO	NA
TNF infliximab, adalimumab, certolizumab, golimumab	-Higher infection risk -Relative contraindication in CHF, MS, areas endemic for opportunistic infection	Treats RA, psoriasis, psoriatic arthritis, ankylosing spondylitis, etc.	Yes	Metanalysis suggests largest effect for infliximab	IV or SC	Higher
JAK (UC) tofacitinib upadacitinib	-Higher infection risk -Avoid in smokers, significant CV disease, malignancy	Treats RA, psoriatic arthritis, ankylosing spondylitis	No	Must try TNF first	PO	NA

(Sands, Peyrin-Biroulet et al. 2019; Sands, Irving et al. 2022)

Treat to target

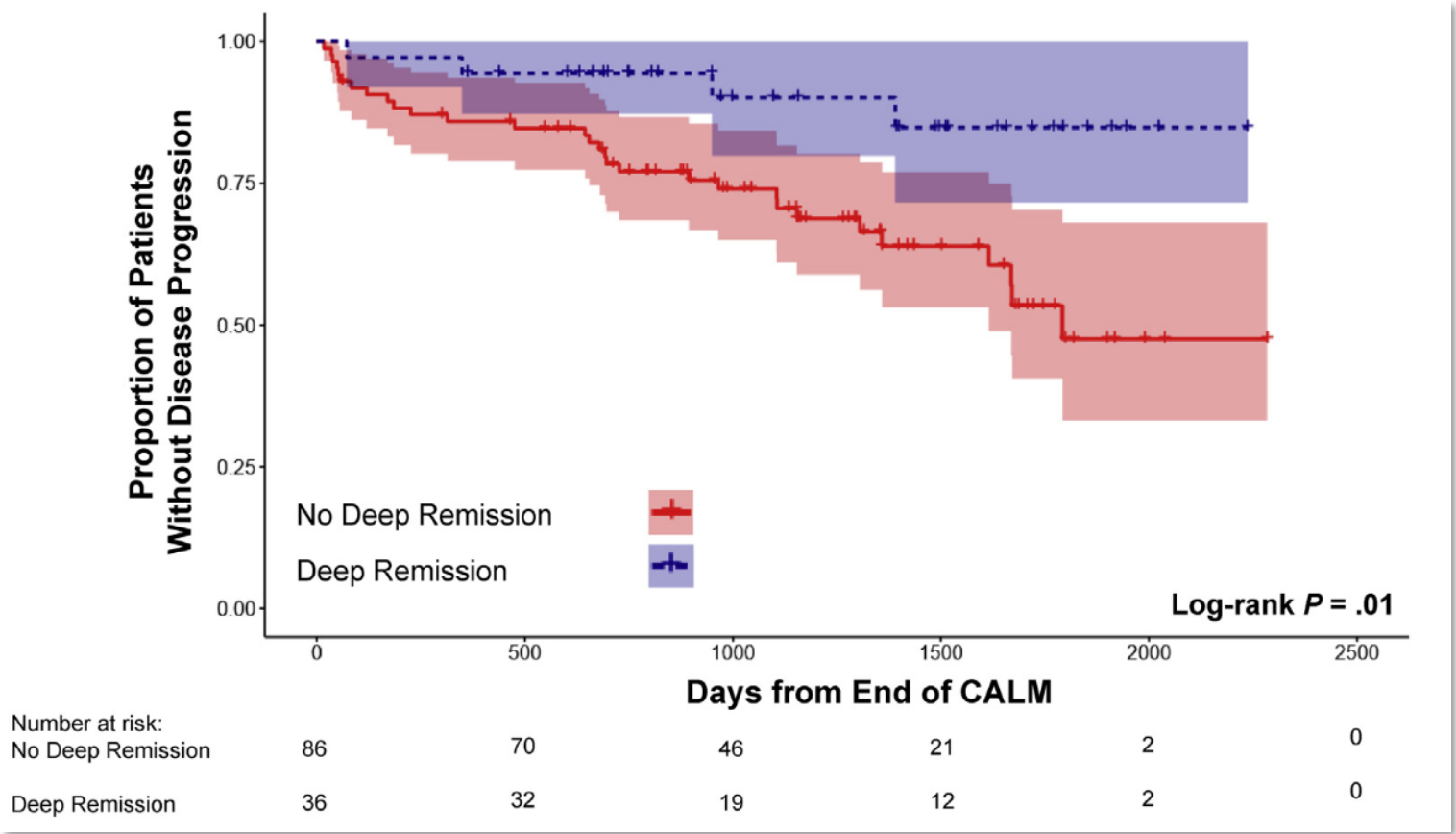
- Improve symptoms & quality of life
- Minimize side effects of medications
- **Steroid free endoscopic remission**
 - decreases risk of stricture, fistula, colorectal cancer/dysplasia, hospitalizations & surgery



(Turner, Ricciuto et al. 2021; Shah, Colombel et al. 2016; Gupta, Harpaz et al. 2007)

Follow up data from CALM

Patients with early CD who achieved deep remission had a **significantly lower risk** of new fistula, abscess, hospitalization or surgery (adjusted HR 0.19; 95% CI, 0.07-0.31)



(Ungaro, Yzet et al. 2020, Colombel, Panaccione et al. 2017)

Summary

- **Risk stratify & treat appropriately**
 - Low risk – budesonide, mesalamine or monitor
 - High risk – early appropriate therapy with biologics or small molecules
- **No trials on ideal sequence of all therapies**
 - Vedolizumab > adalimumab in UC
 - Consider safety, pregnancy, comorbidities
- **Treat to target**

Low risk

- Limited extent
- Mild endoscopic disease

High risk

- Age of diagnosis <30
- Extensive disease (extensive ileal, pancolitis)
- Deep ulcers
- Severe rectal disease
- Strictures or fistulas
- Steroid dependent, IV steroids
- Hospitalization
- Smoker
- C. diff or CMV (UC)



References

1. Agrawal, M., E. A. Spencer, J. F. Colombel and R. C. Ungaro (2021). "Approach to the Management of Recently Diagnosed Inflammatory Bowel Disease Patients: A User's Guide for Adult and Pediatric Gastroenterologists." *Gastroenterology* **161**(1): 47-65.
2. Barré, A., J. F. Colombel and R. Ungaro (2018). "Review article: predictors of response to vedolizumab and ustekinumab in inflammatory bowel disease." *Aliment Pharmacol Ther* **47**(7): 896-905.
3. Colombel, J. F., N. Narula and L. Peyrin-Biroulet (2017). "Management Strategies to Improve Outcomes of Patients With Inflammatory Bowel Diseases." *Gastroenterology* **152**(2): 351-361.e355.
4. Colombel, J. F., R. Panaccione, P. Bossuyt, M. Lukas, F. Baert, T. Vaňásek, A. Danalioglu, G. Novacek, A. Armuzzi, X. Hébuterne, S. Travis, S. Danese, W. Reinisch, W. J. Sandborn, P. Rutgeerts, D. Hommes, S. Schreiber, E. Neimark, B. Huang, Q. Zhou, P. Mendez, J. Petersson, K. Wallace, A. M. Robinson, R. B. Thakkar and G. D'Haens (2017). "Effect of tight control management on Crohn's disease (CALM): a multicentre, randomised, controlled phase 3 trial." *Lancet* **390**(10114): 2779-2789.
5. Gupta, R. B., N. Harpaz, S. Itzkowitz, S. Hossain, S. Matula, A. Kornbluth, C. Bodian and T. Ullman (2007). "Histologic inflammation is a risk factor for progression to colorectal neoplasia in ulcerative colitis: a cohort study." *Gastroenterology* **133**(4): 1099-1105; quiz 1340-1091.
6. Khanna, R., B. Bressler, B. G. Levesque, G. Zou, L. W. Stitt, G. R. Greenberg, R. Panaccione, A. Bitton, P. Paré, S. Vermeire, G. D'Haens, D. MacIntosh, W. J. Sandborn, A. Donner, M. K. Vandervoort, J. C. Morris and B. G. Feagan (2015). "Early combined immunosuppression for the management of Crohn's disease (REACT): a cluster randomised controlled trial." *Lancet* **386**(10006): 1825-1834.
7. Langholz, E., P. Munkholm, M. Davidsen and V. Binder (1994). "Course of ulcerative colitis: analysis of changes in disease activity over years." *Gastroenterology* **107**(1): 3-11.
8. Rubin, D. T., A. N. Ananthakrishnan, C. A. Siegel, B. G. Sauer and M. D. Long (2019). "ACG Clinical Guideline: Ulcerative Colitis in Adults." *Am J Gastroenterol* **114**(3): 384-413.
9. Sandborn, W. J. (2014). "Crohn's disease evaluation and treatment: clinical decision tool." *Gastroenterology* **147**(3): 702-705.
10. Sands, B. E., L. Peyrin-Biroulet, E. V. Loftus, Jr., S. Danese, J. F. Colombel, M. Törüner, L. Jonaitis, B. Abhyankar, J. Chen, R. Rogers, R. A. Lirio, J. D. Bornstein and S. Schreiber (2019). "Vedolizumab versus Adalimumab for Moderate-to-Severe Ulcerative Colitis." *N Engl J Med* **381**(13): 1215-1226.
11. Sands, B. E., P. M. Irving, T. Hoops, J. L. Izanec, L. L. Gao, C. Gasink, A. Greenspan, M. Allez, S. Danese, S. B. Hanauer, V. Jairath, T. Kuehbacher, J. D. Lewis, E. V. Loftus, Jr., E. Mihaly, R. Panaccione, E. Scherl, O. B. Shchukina and W. J. Sandborn (2022). "Ustekinumab versus adalimumab for induction and maintenance therapy in biologic-naïve patients with moderately to severely active Crohn's disease: a multicentre, randomised, double-blind, parallel-group, phase 3b trial." *Lancet* **399**(10342): 2200-2211.
12. Shah, S. C., J. F. Colombel, B. E. Sands and N. Narula (2016). "Mucosal Healing Is Associated With Improved Long-term Outcomes of Patients With Ulcerative Colitis: A Systematic Review and Meta-analysis." *Clin Gastroenterol Hepatol* **14**(9): 1245-1255.e1248.
13. Singh, S., M. H. Murad, M. Fumery, P. S. Dulai and W. J. Sandborn (2020). "First- and Second-Line Pharmacotherapies for Patients With Moderate to Severely Active Ulcerative Colitis: An Updated Network Meta-Analysis." *Clin Gastroenterol Hepatol* **18**(10): 2179-2191.e2176.
14. Torres, J., S. Mehandru, J. F. Colombel and L. Peyrin-Biroulet (2017). "Crohn's disease." *Lancet* **389**(10080): 1741-1755.
15. Turner, D., A. Ricciuto, A. Lewis, F. D'Amico, J. Dhaliwal, A. M. Griffiths, D. Bettenworth, W. J. Sandborn, B. E. Sands, W. Reinisch, J. Schölmerich, W. Bemelman, S. Danese, J. Y. Mary, D. Rubin, J. F. Colombel, L. Peyrin-Biroulet, I. Dotan, M. T. Abreu and A. Dignass (2021). "STRIDE-II: An Update on the Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE) Initiative of the International Organization for the Study of IBD (IOIBD): Determining Therapeutic Goals for Treat-to-Target strategies in IBD." *Gastroenterology* **160**(5): 1570-1583.
16. Ungaro, R. C., C. Yzet, P. Bossuyt, F. J. Baert, T. Vanasek, G. R. D'Haens, V. W. J. Jost, R. Panaccione, G. Novacek, W. Reinisch, A. Armuzzi, O. Golovchenko, O. Prymak, A. Goldis, S. P. Travis, X. Hébuterne, M. Ferrante, G. Rogler, M. Fumery, S. Danese, G. Rydzewska, B. Pariente, E. Hertervig, C. Stanciu, M. Serrero, M. Diculescu, L. Peyrin-Biroulet, D. Laharie, J. P. Wright, F. Gomollón, I. Gubonina, S. Schreiber, S. Motoya, P. M. Hellström, J. Halfvarson, J. W. Butler, J. Petersson, F. Petralia and J. F. Colombel (2020). "Deep Remission at 1 Year Prevents Progression of Early Crohn's Disease." *Gastroenterology* **159**(1): 139-147.

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Kindra is an investigator at the University of Washington, IBD Research Program, assisting with clinical trials and investigator initiated studies.

PANEL DISCUSSION



Panel Discussion

Moderator: Ghassan Wahbeh, MD
Kindra Clark-Snustad, DNP
Erica Heagy, FNP
Scott D. Lee, MD
Jeff Jacobs, MD



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3rd IBDHORIZONS UPDATES FOR APP



IBDH

King Street Ballroom, October 29, 2022

