

Inflammatory Bowel Disease Standardized Care Protocols

Title: Partial response/Loss of response

Objective: achieve and maintain remission with biologic **Patient population:** patients diagnosed with inflammatory bowel disease on biologics

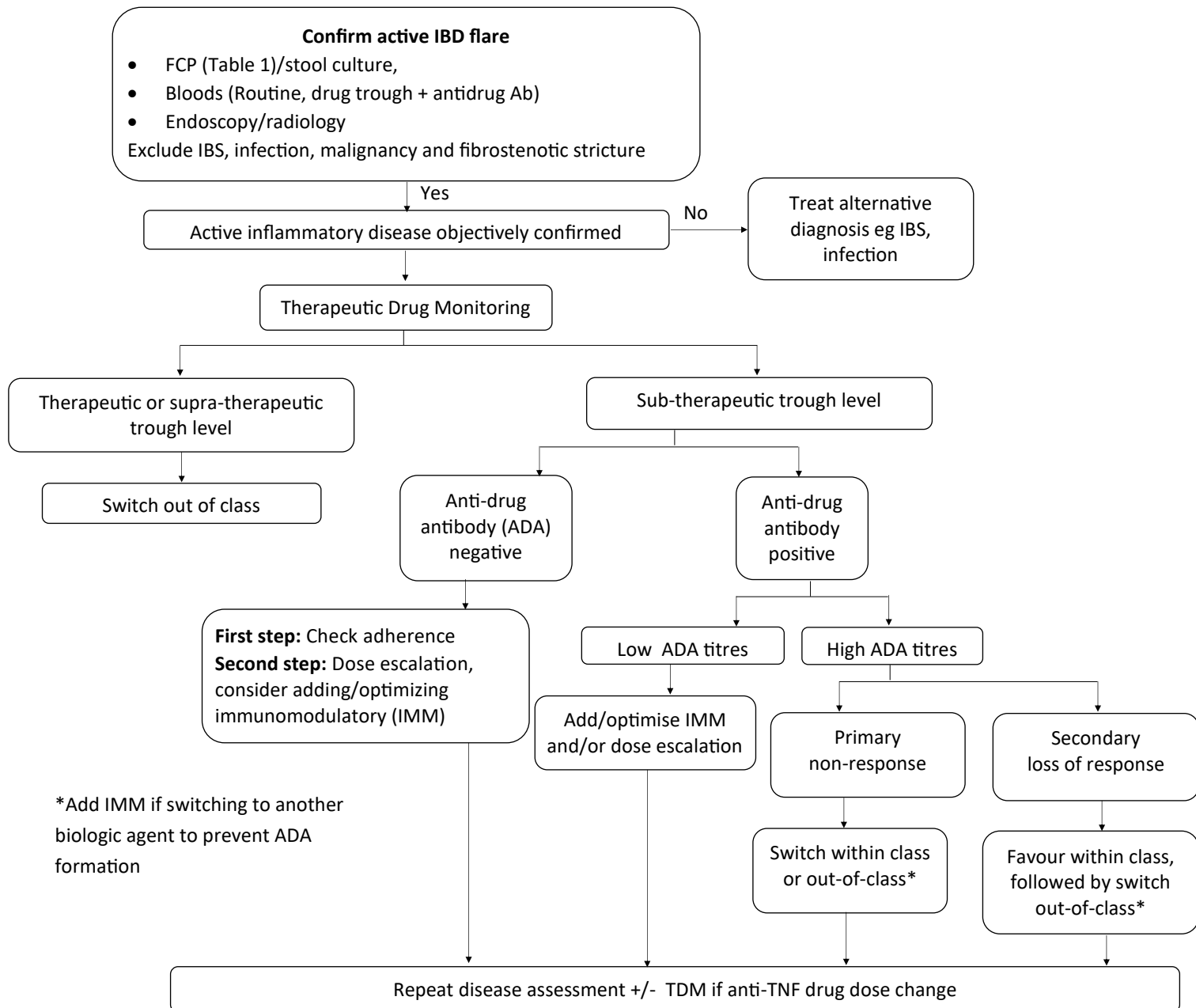


Table 1: Fecal Calprotectin results and Clinical approach

Fecal Calprotectin (µg/g)	Interpretation	Suggested Management
<50-100	Quiescent disease likely	Continue current therapy
>100-250	Inflammation possible	Investigate (e.g., colonoscopy) to confirm inflammation
>250	Inflammation likely	Optimize/switch therapy

Table 2: Approach to Managing Thiopurine Therapy

Etiology of Thiopurine Failure	6-TGN Level (pmol/10 ⁸ erythrocytes)	6-MMP Level (pmol/10 ⁸ erythrocytes)	6-MMP/6-TGN Ratio	Proposed Treatment Strategy
Inadequate dose	Low (<230)	Low (<5700)	Normal (4-24)	Increase dose
Excessive TPMT	Low (<230)	High (>5700)	High (>24)	TPMT modulation by the addition of allopurinol or 5-ASA, dose splitting, switch to alternative agent, such as MTX
Lack of adherence	Low (<230)	Low (<5700)	Normal (4-24)	Verify adherence
True drug ineffectiveness	Normal (230-400)	Normal (<5700)	Normal (4-24)	Alternative therapy

5-ASA: Mesalamine

MTX: Methotrexate

6-MMP: 6-methylmercaptopyrine

TPMT: Thiopurine methyltransferase

6-TGN: 6-thioguanine nucleotides

REFERENCES:

- Papamichael et al. Appropriate Therapeutic Drug Monitoring of Biologic Agents for patients with inflammatory bowel diseases. Clin Gastroenterol Hepatic. 2019; 17(9):1655-1668
- Feuerstein et al. American Gastroenterological Association Institute Guideline on Therapeutic Drug Monitoring in Inflammatory Bowel Disease. Gastroenterology 2017;153(3):827-834
- Mitrev et al. Review article: consensus statements on therapeutic drug monitoring of anti-tumor necrosis factor therapy in inflammatory bowel diseases. Aliment Pharmacol Ther 2017; 46(11-12):1037-1053
- Bressler et al. Clinician's guide to the use of fecal calprotectin to identify and monitor disease activity in inflammatory bowel disease. Can J Gastroenterol Hepatol 2015;29(7):369-372
- Kopylov et al. Therapeutic drug monitoring in inflammatory bowel disease. Ann Gastroenterol 2014;27(4):304-312