Figure 1. Clinical decision support tool for use and positioning of advanced therapies in the management of adult outpatients with moderate to severely active ulcerative colitis.

Adult outpatients with moderate-to-severely active Crohn's Disease

Moderate to severely active CD defined as:

- Moderate to severe abdominal pain and/or diarrhea due to inflammation
- Mild symptoms, with high burden of inflammation
- Patients with corticosteroid-dependence, or refractory to oral corticosteroids
- Significant extent of disease or upper gut involvement

SUGGEST early use of advanced therapies, rather than step up after corticosteroids and/or immunomodulator monotherapy (Conditional recommendation, very low certainty of evidence)

RECOMMEND using any of the following, over no treatment: Infliximab, adalimumab, ustekinumab, risankizumab, guselkumab, mirikizumab, or upadacitinib*

(Strong recommendation, moderate to high certainty of evidence)

SUGGEST using any of the following, over no treatment: Certolizumab pegol, vedolizumab

(Conditional recommendation, moderate certainty of evidence)

Implementation considerations:

- 1. Biosimilars of infliximab, adalimumab, and ustekinumab can be considered equivalent to their originator drug in their efficacy in terms of therapy selection.
 - 2. Subcutaneous formulations of infliximab and vedolizumab have shown comparable efficacy to the respective intravenous maintenance doses.
 - 3. In some patients, particularly those with more severe disease, extended induction regimens or dose escalation may be beneficial for certain agents.
- 4. There are two dosing options available for maintenance therapy for risankizumab, guselkumab and upadacitinib. Higher maintenance doses may be preferred in patients with high burden of inflammation and/or more severe disease, and those who have previously failed TNF antagonists.

Advanced therapy-naïve patients (First-line therapy)

SUGGEST using a HIGHER efficacy rather than a lower efficacy medication.

(Conditional recommendation, low to high certainty of evidence)

HIGHER EFFICACY MEDICATIONS: Infliximab, Adalimumab, Vedolizumab,

Ustekinumab, Risankizumab, Mirikizumab, Guselkumab

LOWER EFFICACY MEDICATIONS: Certolizumab Pegol, Upadacitinib*

Prior exposure to one or more advanced therapies, particularly TNF antagonists

SUGGEST using a HIGHER efficacy, or INTERMEDIATE efficacy medication, rather than a lower efficacy medication. (Conditional recommendation, low to moderate certainty of evidence)

HIGHER EFFICACY MEDICATIONS: Adalimumab, Risankizumab, Guselkumab, Upadacitinib

INTERMEDIATE EFFICACY MEDICATIONS: Ustekinumab, Mirikizumab

LOWER EFFICACY MEDICATIONS: Certolizumab Pegol, Vedolizumab

*The FDA label recommends the use of JAK inhibitors only in patients with prior failure or intolerance to TNF antagonists.