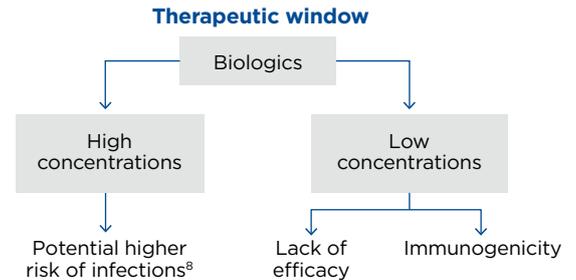


PROACTIVE THERAPEUTIC DRUG MONITORING



What is proactive TDM?

TDM is the measurement of trough concentration and antibody levels by targeting drug concentrations considered to be in the optimal therapeutic range. The aim of proactive TDM is to improve response rates and prevent secondary loss of response, being used during induction, at end of induction, or during maintenance.¹



Proactive vs reactive TDM

PROACTIVE

BRIDGE group panel 2019

“TDM should be performed in patients responding to anti-TNF therapy at the end of induction and at least once in maintenance”²

VS

REACTIVE

ACG ulcerative colitis 2019

“Responders to anti-TNF therapy losing response recommend measuring serum drug levels to assess reason for loss of response”³



EVIDENCE

Multicenter, retrospective, observational study; n = 264; maintenance therapy with IFX

- ✓ Less treatment failure with proactive TDM vs reactive TDM
- ✓ Less IBD-related surgery, less hospitalization, less ATI and less serious infusion reactions

When should proactive TDM be used?

Benefits



INDUCTION

The development of ATI is associated with lower IFX concentration and worse clinical outcomes in UC. This development could **be avoided by using proactive TDM**.⁵



MAINTENANCE

The use of proactive TDM would allow to treat patients with IFX monotherapy. This treatment would be as effective as combination therapy since it is drug concentration, not combination therapy, that is associated with clinical outcomes.^{6,7}

1. Positive associations of trough concentration and clinical outcomes.^{1,2}
2. Drug concentrations and antidrug antibodies help guide decisions.^{1,2}
3. **Proactive TDM (induction)²:** Allows better results than SoC with longer-term outcomes.
4. **Proactive TDM (maintenance)^{1,2}:** It is cost effective, resulting in better therapeutic outcomes when compared with empiric dose optimization and/or reactive TDM. Optimized monotherapy could substitute combination therapy.

Abbreviations

ATI, Antibodies To Infliximab; IBD, Inflammatory Bowel Diseases; IFX, Infliximab; SoC, Standard of Care; TDM, Therapeutic Drug Monitoring; UC, Ulcerative Colitis

References

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