Maintenance of IBD remission after switching from IV to SC administration of infliximab

Andreja Ocepek[1], Nejc Bukovnik[1], Robert Pernek[1], Cvetanka Velkovski[1], Evgenija Homšak[2], Dunja Putniković[3], Sara Nikolić[1]

[1] *Dept. for gastroenterology, Clinic for Internal medicine, University Medical Centre Maribor, Slovenia*

[2] *Dept. for laboratory diagnostic, University Medical Centre Maribor, Slovenia*

[3] *Faculty of Medicine, University of Belgrade, Belgrade, Serbia*

Correspondence: Andreja.Ocepek@ukc-mb.si

Slovenian Journal of Gastroenterology / Gastroenterolog 2025; supplement 1: 60–61

INTRODUCTION

Infliximab, a chimeric monoclonal antibody targeting tumor necrosis factor-alpha (TNF-α), is a well-established therapeutic option for immune-mediated inflammatory diseases, including Crohn's disease and ulcerative colitis. Traditionally administered via intravenous (IV) infusion, infliximab treatment requires hospital-based care, which can place logistical burdens on patients and healthcare systems. In year 2019, the European Medicines Agency approved a subcutaneous (SC) formulation of infliximab, offering a potentially more convenient and patient-centered route of administration. Since then, several clinical trials and real-world studies have evaluated the safety, effectiveness, and acceptability of transitioning from IV to SC infliximab in patients with inflammatory bowel disease (IBD).

BACKGROUND

The REMSWITCH study included 181 adult patients with Crohn's disease or ulcerative colitis who underwent elective switching from IV to SC infliximab. At six months post-switch, 89% of patients maintained clinical remission, with stable levels of fecal calprotectin and C-reactive protein. No new safety signals were identified, and only a minority of patients discontinued SC therapy due to adverse events or loss of efficacy (1). Smith *et al.* reported on 133 patients in a multicenter cohort study across the UK. Efficacy outcomes were consistent with the findings from REMSWITCH, with no statistically significant difference in clinical disease activity after switching. The study confirmed the feasibility and safety of elective switching across diverse clinical settings (2). Switching from IV to SC injections also reduces the need for in-person hospital visits, minimizes risk of nosocomial infections, and was shown to be well accepted by patients which can self-administer infliximab at home (3). Across studies, patients expressed a strong preference for SC administration due to increased convenience, reduced travel time, and greater autonomy. Quality-of-life assessments and satisfaction surveys highlighted a general trend toward improved patient experience post-switch, supporting the relevance of SC infliximab in shared decision-making contexts. Additionally pharmacokinetic and immunogenicity data indicate that SC infliximab achieves a more consistent serum concentration profile compared to IV administration, with fewer trough level fluctuations and potentially lower immunogenicity (4). These characteristics may contribute to sustained clinical efficacy and improved patient outcomes over time.

Switching from IV to SC infliximab represents a clinically sound and patient-preferred strategy for the long-term management of IBD. The growing body of real-world evidence demonstrates that SC infliximab maintains efficacy and safety in patients who

were previously stable on IV formulations, including those on intensified regimens. Importantly, the ability to self-administer therapy at home not only enhances patient convenience but also aligns with modern principles of decentralized, personalized care. Pharmacological advantages of the SC formulation, including more stable drug exposure and a potentially reduced risk of anti-drug antibody development, further strengthen its role in IBD management. From a healthcare system perspective, reduced infusion centre visits may ease resource constraints and facilitate a more sustainable model of care delivery, particularly in the face of ongoing public health challenges. Still individualized assessment remains crucial. Not all patients may be suitable candidates for SC therapy due to issues such as injection-related anxiety, comorbid conditions, or previous immunogenicity. Thus, the decision to switch should be grounded in a collaborative discussion between clinician and patient, taking into account clinical status, personal preferences, and logistical factors.

OBJECTIVES OF THE STUDY

We are conducting a prospective single-centre based clinical study in our cohort of IBD patients in University Medical Centre Maribor receiving maintenance IV infliximab. The objective is to switch patients from IV to SC infliximab with a fixed time interval of 4 weeks between last IV and first SC application. This approach is expected to reduce the risk of suboptimal serum concentrations of infliximab when switching to sc injections. Consequently, the risk of loss of effect, antibodies formation and disease relapse is reduced. Our outcomes of interest include clinical, biochemical and endoscopic remission, treatment persistence, adverse event profiles, anti-drug antibody formation, serum drug levels, immunological profile and patient satisfaction. We are reporting an interim analysis after 24 weeks of follow-up with data on maintenance of clinical and biochemical remission, medium term treatment persistence, serum drug levels before and after the switch and patient satisfaction with SC application.

CONCLUSION

The transition from IV to SC infliximab in patients with IBD is supported by clinical evidence and real-world data. SC infliximab offers equivalent efficacy and safety, improved pharmacokinetic properties, and enhanced patient satisfaction. These findings endorse SC infliximab as a viable, convenient, and effective alternative to IV administration in appropriately selected patients.

References

1. Buisson A, Nachury M, Reymond M, Yzet C, Wils P, Payen L, Laugie M, Manlay L, Mathieu N, Pereira B, Fumery M. Effectiveness of Switching From Intravenous to Subcutaneous Infliximab in Patients With Inflammatory Bowel Diseases: the REMSWITCH Study. Clin Gastroenterol Hepatol. 2023 Aug;21(9):2338-2346.e3.
2. Smith PJ, Critchley L, Storey D, Gregg B, Stenson J, Kneebone A, Rimmer T, Burke S, Hussain S, Yi Teoh W, Vazeille S, Serna S, Steel A, Derbyshire E, Collins P, Dibb M, Flanagan P, Probert C, Verma AM, Subramanian S. Efficacy and Safety of Elective Switching from Intravenous to Subcutaneous Infliximab [CT-P13]: A Multicentre Cohort Study. J Crohns Colitis. 2022 Sep 8;16(9):1436-1446.
3. Verma AM, Patel A, Subramanian S, Smith PJ. From intravenous to subcutaneous infliximab in patients with inflammatory bowel disease: a pandemic-driven initiative. Lancet Gastroenterol Hepatol. 2021 Feb;6(2):88-89.
4. Alten R, An Y, Kim DH, Yoon S, Peyrin-Biroulet L. Re-Routing Infliximab Therapy: Subcutaneous Infliximab Opens a Path Towards Greater Convenience and Clinical Benefit. Clin Drug Investig. 2022 Jun;42(6):477-489.