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### Introduction

Chronic gastrointestinal inflammatory disease called ulcerative colitis (UC) primarily affects the colon. Patients with UC have bloody diarrhoea, stomach discomfort, weight loss, and fever as a result of chronic inflammation of the colon's surface mucosa, crypt epithelium, and/or submucosa. Although UC symptoms are comparable in both adults and children, pediatric-onset UC tends to be more severe than in adult patients and is therefore more frequently linked to acute severe exacerbations [1]. The main objective of this study is to assess iximab pharmacokinetics in pediatric ulcerative colitis (UC). Similar treatment approaches and results are seen in both paediatric and adult UC patients, with disease activity serving as the primary motivating factor for juvenile therapy alternatives [2]. The following types of drugs are included in pharmacologic therapy for UC: 5-aminosalicylates, corticosteroids, thiopurine immunomodulators, calcineurin inhibitors, antibiotics, probiotics, and anti-tumor necrosis factor (TNF) medicines [3]. The anti-tumor necrosis factor monoclonal antibody iximab (Janssen Biotech, Inc., Horsham, PA) is authorised for the treatment of a number of immune-mediated inflammatory diseases, including paediatric patients with UC who show an inadequate response to conventional therapy and are at least 6 years old, trials in paediatric patients with Crohn's disease (CD) and in adult patients with UC in order to improve the interpretation of clinical outcomes in this paediatric UC study [6,7].

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**\*Corresponding author:** Sarah Joseph, Department of Family Medicine, Faculty of Family Medicine, Helwan University, Giza, Egypt, E-mail: sarahj@gmail.com

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### Discussion

Details about the study's design and patient eligibility have been



serum infiximab concentration on efficacy in this younger age group [19]. The results given here, which are based exclusively on the time of induction dosage, do not support the anticipation that the use of concurrent immunomodulators in conjunction with infiximab may be linked with slower clearance of infiximab and hence higher infiximab concentration. It's possible that this is due to the small sample sizes or the little time period used in the current comparison research. When given concurrently with an immunomodulator, the incidence of infiximab immunogenicity decreases, which is one method by which the influence of contemporaneous immunomodulators on infiximab pharmacokinetics has been explained.

#### Conclusion

An induction regimen of 5 mg/kg administered as an intravenous infusion at weeks 0, 2, and 6 followed by maintenance infusions of 5 mg/kg infiximab q8w appears to be appropriate for the treatment of UC in paediatric patients, according to an analysis of the pharmacokinetic, efficacy, and safety data from C0168T72 and supportive data from adult patients with UC. This analysis showed comparable pharmacokinetics and exposure-response between the paediatric and adult patients [20-22]. To more fully understand the pharmacokinetics of infiximab in younger paediatric patients with UC, more research on the drug's pharmacokinetics and exposure-response relationships in paediatric patients with UC younger than 6 years may be necessary.

#### Acknowledgements

None

#### Conflict of Interest

Author declares no conflict of interest

#### References

1. Kelsen J, Baldassano RN (2008) Inflammatory bowel disease: the difference between children and adults. *Inflamm Bowel Dis* 14: 9-11.
2. Sauer CG, Kugathasan S (2009) Pediatric inflammatory bowel disease: highlighting pediatric differences in IBD. *Gastroenterol Clin North Am* 38: 611-628.
3. Bradley GM, Oliva-Hemker M (2012) Pediatric ulcerative colitis: current treatment approaches including role of infiximab. *Biologics* 6: 125-134.
4. Kelsen J, Gupta K, Grossman A, Mamula P, Baldassano R (2011) Infiximab therapy in pediatric patients 7 years of age and younger: O-10. *J Pediatr Gastroenterol Nutr* 17: 5.
5. Hyams J, Damaraju L, Blank M, Johans J, Guzzo C, et al. (2012) Induction and maintenance therapy with infiximab in pediatric ulcerative colitis. *Am J Gastroenterol* 107: 100-108.