The main recommendation was the maintenance of the regimen and the intensification of the dose. The gastroenterologist acted following the suggestion of the pharmacist in more than 80% of the cases.

Conclusion Results obtained show a high percentage of patients with inadequate anti-TNF serum levels and support the use of anti-TNF pharmacokinetic monitoring as a useful tool in clinical decision-making.

REFERENCES AND/OR ACKNOWLEDGEMENTS

To my workmates, thank you.

No conflict of interest.

4CPS-158 CLINICAL BENEFIT OF INFLIXIMAB MONITORING IN INFLAMMATORY BOWEL DISEASE

M Ulinares, S Martínez Pérez, G Miralles Andreu, L Peral Ballester, AC Murcia López, A Navarro Ruiz*. *Hospital General Universitario de Elche, Hospital Pharmacist, Elche, Spain*

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Background The adjustment of infliximab (IFX) doses is commonly based on subjective data or invasive methods. However, pharmacokinetic monitoring of IFX plasma levels is a currently available tool that has proved to be useful in the optimisation of clinical results.¹

Purpose To analyse the clinical course of acute-phase reactants in patients with inflammatory bowel disease (IBD) treated with IFX, and to evaluate if there is a clinical benefit resulting from applying the pharmacokinetic recommendations in the management of these patients.

Material and methods Retrospective, cross-sectional study carried out in a general hospital. All the determinations of IFX performed during 2017 in patients with IBD were analysed. After analytical determination, the pharmacy service performed a pharmacokinetic study (Bayesian statistics) and recommended a new dosage to the digestive specialist. Identification data of the patients and analytical results (fecal calprotectin and C-reactive protein (CRP)) measured before the monitoring (pre) and 3 months later (post) were collected. In addition, it was evaluated if the digestive specialist followed the pharmacokinetic recommendation (acceptance/rejection).

Results During the study period, the IFX serum levels of 21 patients with IBD were determined. The mean level of fecal calprotectin measured before the extraction of IFX blood levels was 1,257.2 mg/kg and this was reduced to 503.2 mg/kg at 3 months after monitoring ($p=0.053$). As for CRP, a decrease was also observed, with a CRP value of 7.1 mg/L before monitoring and a CRP value of 3.8 mg/L after 3 months ($p=0.035$). These data were analysed again, stratifying according to the degree of acceptance of the pharmacist's recommendations for clinical decision-making (table 1).

Abstract 4CPS-158 Table 1 Acute-phase reactants (pre- and post-monitoring) segmented by the acceptance of the pharmacist's intervention

	Fecal calprotectin (mg/Kg)	CRP (mg/L)
	Xpre-Xpost monitoring (P-value)	Xpre-Xpost monitoring (P-value)
ACCEPTED	1.163-475 (0.044*)	7.4-3.8 (0.021*)
REJECTED	1.295-727 (0.655)	4.6-3.8 (0.715)

X=average; P-value (Wilcoxon test)

Conclusion Both PCR and calprotectin were reduced after 3 months of IFX monitoring. The clinical improvement observed was greater in the group of patients in whom the dose drug was adjusted following the recommendation of the pharmacist. These results support the role of therapeutic IFX monitoring in the optimisation of IBD treatment, according to the evidence published by other authors.

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No conflict of interest.

4CPS-159 PERIOPERATIVE MANAGEMENT OF ANTIRHEUMATIC MEDICATION IN REAL PRACTICE: IS MISMANAGEMENT RELATED TO POST-SURGICAL COMPLICATIONS?

P Ranz Ortega*, R Vázquez-Sánchez, ME Martínez-Núñez, T Molina-García. *Hospital Universitario de Getafe, Pharmacy, Madrid, Spain*

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Background A perioperative management of antirheumatic drug therapy guidelines was published by the American College of Rheumatology in 2017. The optimal perioperative management of immunosuppressant therapy may present an opportunity to mitigate post-surgery infection risk versus disease flare risk if the medication is withheld.

Purpose To evaluate the accuracy between the real practice in perioperative management of patients with rheumatic diseases and the guideline recommendations, and to assess post-surgery complications and identify associated risk factors.

Material and methods Retrospective, observational study. Adult patients with rheumatoid arthritis (RA), spondyloarthritis (SpA) and psoriatic arthritis (PsA) in treatment with biologic agents while undergoing surgery between January 2017 and August 2018 were included.

Data collected:

- Diagnosis, antirheumatic treatment (biologic agent, disease-modifying antirheumatic drugs (DMARDs) and glucocorticoids) and doses.
- Continuation/interruption of DMARDs and biologic agent, time of reintroducing them and glucocorticoid adjustment dose during surgery.
- Post-surgery complications: infections and disease flares.

Descriptive statistics and binary logistic regression were performed with SPSS 20.0.

Results Forty-seven patients were included: 63.8% RA, 19.1% SpA and 17.1% PsA. Anti-TNF α agents were used in 76.5% patients, from which 14% of patients required an intensified dose. DMARDs were combined with biologic therapy in 63.8%, while glucocorticoids were used in 44.7%.

During perioperative time and according to guidelines, a total of 93.3% continued with DMARDs and 95.2% with glucocorticoids when the daily dose of prednisone or equivalent was <20 mg. Nevertheless, 14.8% interrupted the biologic agent, from which 42.8% of the surgeries were scheduled at the end of the biological therapy cycle and no patient was properly reintroduced to a biologic agent after 14 days from surgery.

Post-surgery infection complications appeared in 8.5% and no patient had disease flare during the post-operative stage.

No association between infection complications and perioperative mismanagement of biologic agents (P: 0.359), nor with the biologic therapy-intensified dose (P: 0.379).

Conclusion

- Perioperative management of biologic therapy in real practice was not according to guidelines, while with DMARDS and glucocorticoids it was appropriate.
- We have not found risk factors associated with post-surgical complications in rheumatic diseases.
- Perioperative management could be a new challenge in the pharmaceutical care of biologic therapies.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-160 EFFICACY AND SAFETY OF ANAKINRA AND CANAKINUMAB FOR THE TREATMENT OF IL-36R ANTAGONIST DEFICIENCY

¹M Sáez-Torres de Vicente*, ²PJ Gómez Arias, ¹J Hernández Parada, ²J Ruano Ruiz, ²F Gómez García, ¹B Isla Tejera. ¹Hospital Reina Sofia, Pharmacy, Córdoba, Spain; ²Hospital Reina Sofia, Dermatology, Córdoba, Spain

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Background Alterations in the interleukin (IL)–1 pathway have been shown to be involved in the pathogenesis of some auto-inflammatory diseases. Deficiency of the IL-36R antagonist (DITRA) is a recently described rare hereditary disease in which IL-1 antagonists may represent therapeutic alternatives.

Purpose To summarise the evidence for the efficacy and safety of IL-1-targeting drugs in DITRA following the scoping review's methodology.

Material and methods A scoping review was conducted following an a priori protocol based on the Joanna Briggs Institute Reviewer's Manual¹ and the recently published PRISMA extension for scoping review statement. A three-step searching procedure on MEDLINE and EMBASE databases until March 2018 with additional hand-searching performed article selection, and data extraction were carried out by two researchers independently. Evidence on the efficacy and safety of therapies for this disease were synthesised.

Results Nine case reports published between 2011 and 2018 were found. All patients were treated with anakinra at 2–5 mg/kg/day or 100 mg/day, and one patient was also treated with canakinumab 3 mg/kg every 8 weeks. The duration of anakinra treatment ranged from 3 days to 12 months. With regard to the efficacy of anakinra, time-to-response frequencies were evaluated as immediate (7/9), short term (3/9), and medium-long (2/9). One patient, in whom anakinra had previously failed, received treatment with canakinumab, and this treatment did not prove effective at the initial time or in the short- or long-term analyses. With respect to the safety of anakinra, one case of systemic infection was reported, one of renal and hepatic laboratory abnormalities, rising white blood cell count, deteriorating clinical status with progressive skin pustulation and pain at the injection site without erythema. No adverse events were reported in the patient who had been treated with canakinumab.

Conclusion Evidence of the use of anti-IL-1 drugs in DITRA is scarce and based on observational studies in whom anakinra

is the most commonly used drug, showing a good immediate response, but decreasing short- and medium/long-term responses. Larger studies with better methodological quality are required.

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- No conflict of interest.

4CPS-161 SCOPING REVIEW ON THE USE OF CANAKINUMAB AND ANAKINRA IN INTERLEUKIN-1 ANTAGONIST RECEPTOR DEFICIENCY

¹J Hernandez Parada, ²JA Ruano Ruiz, ³M Sáez-Torres de Vicente*, ²PJ Gómez Arias, ²F Gómez García, ⁴B Isla Tejera. ¹Reina Sofia University Hospital, Department of Pharmacy, Córdoba, Spain; ²Reina Sofia University Hospital/University of Cordoba, Department of Dermatology/Immune-Mediated Inflammatory Skin Diseases Group, Córdoba, Spain; ³Reina Sofia University Hospital, Department of Pharmacy, Córdoba, Spain; ⁴Reina Sofia University Hospital/University of Cordoba, Department of Pharmacy/Immune-Mediated Inflammatory Skin Diseases Group, Córdoba, Spain

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Background Deficiency in interleukin-1 (IL-1) receptor (IL-1R) antagonist (DITRA) is a rare genetic autoinflammatory disorder resulting from autosomal recessive mutations in the IL1RN gene. The use of IL-1 antagonists may prove to be a valid therapeutic alternative, but there is a lack of secondary studies that summarise the use of IL-1-targeting agents in this disease.

Purpose To summarise the efficacy and safety of IL-1 antagonist drugs in DITRA following the scoping review's methodology.

Material and methods The study was conducted and reported using the methodology described in the Joanna Briggs Institute Reviewer's Manual¹ and the PRISMA Extension for Scoping Reviews.²

Results Fifteen case reports studies describing 19 DITRA patients between 2009 and 2017 were found. Nine different mutations in IL1RN were described, showing a homozygous genotype in all cases. Pustular dermatitis and localised swelling represented the most frequent symptom of onset of the disease. These patients were previously treated with corticosteroids (n=13), antibiotics (n=12), NSAIDs (n=4), antifungals (n=3), acitretin (n=3) and, to a lesser frequency, with immunomodulatory drugs (methotrexate, cyclosporine, intravenous immunoglobulins, azathioprine, thalidomide or etanercept). The length of therapy with anakinra (n=17) and canakinumab (n=2) varied between 2 weeks and 4.5 years. All patients achieved immediate (day-hours) clinical responses and most patients also showed good clinical responses in the short (<12 weeks) (n=15) and medium-long (>24 weeks) (n=10) term. In the two patients treated with canakinumab, one showed good overall response, and the other required a dose increase to achieve a good response in the short term with no data available in the medium/long-term. With respect to drug safety, anakinra was associated with transient injection site reactions (n=3) and anaphylactic reactions (n=2). Discontinuation of anakinra in nine patients was reported following a flare-up of their disease. An episode of vomiting and diarrhoea was reported in a patient treated with high doses of canakinumab.