

# Impact of a clinical pharmacist in a multidisciplinary consultation on the switch to a biosimilar for inflammatory rheumatic diseases

## Abstract

Despite several studies proving the efficacy and safety of biosimilars compared with original drugs, switching to a biosimilar remains challenging when the decision is at the discretion of physicians with mandatory consent from patients. Educating patients about biosimilars seems important to increase the prescription rate of biosimilars. This study aimed to evaluate the impact of a clinical pharmacist consultation on the switch to and retention rate of a biosimilar for patients with inflammatory rheumatic diseases. This study highlights the positive impact of a pharmacist consultation before the physician's one on switching to a biosimilar, but more studies are needed to assess the impact of this pharmacist consultation on preventing the nocebo effect and therefore on improving the retention rate of biosimilars.

**Keywords:** Biosimilar pharmaceuticals • Biologic disease-modifying anti-rheumatic drugs • Clinical pharmacist

## Xian Chao Wang\*

Department of Pharmaceutical Chemistry and Clinical Rheumatology, Institute of Pharmacy, Wuhan, China,

### \*Author for Correspondence:

xian.chao@wang.com

**Received:** 02-Aug-2023, Manuscript No. fmijcr-23-114498; **Editor assigned:** 04-Aug-2023, Pre-QC No. fmijcr-23-114498 (PQ); **Reviewed:** 18-Aug-2023, QC No. fmijcr-23-114498; **Revised:** 22-Aug-2023, Manuscript No. fmijcr-23-114498 (R); **Published:** 29-Aug-2023, **DOI:** 10.37532/1758-4272.2023.18(8).236-239

## Introduction

Severe seditious arthritis has significantly bettered the quality of life of cases living with these conditions but remains expensive. The development of biosimilar bDMARDs (bsDMARDs), defined as birth medicines assessed to be analogous to a certified original medicine in terms of quality, safety, and efficacy, has significantly reduced the costs of these treatment strategies. As the original medicines lost patent exclusivity, the vacuity of biosimilars has led to reduced costs. A French-civil study have set up that the major handicap in switching to a biosimilar is the lack of information offered to cases [1]. In this regard, croakers have a crucial part in helping cases to accept the switch to a biosimilar. The information given to the case also seems essential to help the nocebo effect (i.e. a negative outgrowth due to a belief that the intervention will beget detriment), which may be responsible for a return to the original medicine. Several studies revealed a nocebo effect in 15 to 30 of cases, which may

affect in drugnon-adherence and waste, over-utilization of healthcare coffers, polypharmacy. Different healthcare professionals can give this information. Clinical druggists can help in comforting cases with seditious conditions about managing their treatment, in particular for administration, storehouse and disposal, adverse goods and adverse goods operation. In seditious arthritis, education by a druggist has formerly shown a positive impact on cases ' knowledge of their treatment [2].

This was a retrospective, controlled, monocentric, interventionalnon-randomized study conducted in a tertiary department of rheumatology. In diurnal practice in our sanitarium, all cases living with an seditious arthritis and treated with a bDMARDs were offered the choice to meet with a clinical druggist before their appointment with the sanitarium rheumatologist [3].

### Intervention arm

The intervention group was composed of cases who agreed to see a druggist and who thus

passed a multidisciplinary discussion. Those cases had a discussion with a clinical druggist right before their appointment with the rheumatologist on the same day [4, 5].

#### Control arm

The control group was composed of cases who didn't see a clinical druggist before their discussion with the rheumatologist. Those cases were named for a multidisciplinary discussion, as they were treated with sub-cutaneous bDMARDs, but didn't see the druggist before their discussion with the rheumatologist, for different reasons, similar as a case's turndown to share, a croaker 's turndown or a lack of clinical druggist available to give the educational intervention [6].

#### Part of the clinical druggist

Before visiting their rheumatologist during an out-patient clinic, cases were offered the possibility to have a 45- to 60- min discussion with a clinical druggist on the same day as and right before the rheumatologist discussion. During the pharmaceutical discussion, operation of treatment was addressed. In case of a case entering original bDMARDs( adalimumab or etanercept), the druggist presented and banded a document explaining the biosimilarity to the case; this document has been validated by the staff members of the departments of drugstore and rheumatology. The druggist also presented the different biosimilars in the form of a pen or pre-filled hypes , described their characteristics allowing the cases to choose the one that stylish suited them and collect the case's oral concurrence to switch to a biosimilar, before informing the rheumatologist [7].

#### Discussion

This significant impact of the druggist discussion could be explained by the time allowed to inform the case about biosimilars in a 45- to 60- min discussion on top of an average 30- min croaker discussion. Having two different healthcare professionals explaining biosimilars to cases rather of one could also have affected their decision to accept the switch from their original medicine to a biosimilar. We hypothesised that the information given to the cases about biosimilars, their free choice to switch or not and the announcement handed by the clinical druggist to the case's community druggist after the discussion could have bettered adherence to the biosimilar and thus increased the continuity of the medicine input(e.g., retention rate of the medicine) [8, 9]. All those factors should have averted the so- called nocebo effect. This study showed that a clinical druggist discussion could ameliorate the proportion of cases who

switched from an original bDMARD to a biosimilar and the proportion entering biosimilar bDMARDs at the end of follow- up. A multi-centred study with other croakers could confirm the positive impact of the druggist discussion on the switch rate. Other studies would also be necessary to estimate the crucial factors that could ameliorate the retention rate and whether a druggist discussion could affect those factors. Some recommendations for precluding and managing the nocebo effect mentioned that education about biosimilars should be acclimatized to the individual case, taking into account their threat profile for the nocebo effect, which could also impact and change our practice for educating cases about biosimilars [10].

#### Conclusion

The involvement of clinical pharmacists in multidisciplinary consultations regarding the switch to a biosimilar for inflammatory rheumatic diseases is invaluable. Their expertise in medication management, pharmacokinetics, and therapeutic interchange plays a crucial role in ensuring the safe and effective transition to biosimilars. Throughout the consultation process, clinical pharmacists contribute significantly by :

**Medication assessment:** Clinical pharmacists thoroughly assess patients' medical histories, current medication regimens, and potential drug interactions. This evaluation helps identify patients who are suitable candidates for switching to biosimilars.

**Patient education:** Pharmacists play a pivotal role in educating patients about biosimilars, addressing concerns, and providing information on their safety and efficacy. This helps in improving patient adherence and acceptance of the treatment switch.

**Monitoring and management:** Clinical pharmacists are essential in monitoring patients' responses to biosimilars and managing any adverse effects or treatment-related issues. They collaborate closely with other healthcare professionals to ensure optimal patient outcomes.

**Cost-efficiency:** Pharmacists help healthcare teams make informed decisions by considering the cost-effectiveness of biosimilars. Their expertise in pharmacoeconomics contributes to more sustainable healthcare practices.

**Quality assurance:** Clinical pharmacists help maintain the highest standards of medication safety and quality by ensuring proper storage, handling, and administration of biosimilars. Clinical pharmacists are indispensable members of the healthcare team in the transition to biosimilars for inflammatory rheumatic diseases. Their

comprehensive involvement ensures that patients receive safe, effective, and cost-efficient treatments while minimizing potential risks and maximizing therapeutic benefits. Their contributions are essential for optimizing patient care and advancing the field of rheumatology.

**Acknowledgment**

None

**Conflict of Interest**

None

## References

1. Thorn, Caroline F. Doxorubicin Pathways: Pharmacodynamics and Adverse Effects. *Pharmacogenet Genomics*. 21, 440-446 (2011).
2. Brunelli D, Polonelli T, Benini L. Ultra-low energy pest detection for smart agriculture. *IEEE Sens J*. 1-4 (2020).
3. Crippen TL, Poole TL. Conjugative transfer of plasmid-located antibiotic resistance genes within the gastrointestinal tract of lesser mealworm larvae, *Alphitobius diaperinus* (Coleoptera: Tenebrionidae). *Foodborne Pathog Dis*. 7, 907-915 (2009).
4. Dwyer, Claire. 'Highway to Heaven': the creation of a multicultural, religious landscape in suburban Richmond, British Columbia. *Soc Cult Geogr*. 17, 667-693 (2016).
5. Südfeld S. Post-induction hypotension and early intraoperative hypotension associated with general anaesthesia. *Br J Anaesth*. 81, 525-530 (2017).
6. Makam AN, Nguyen OK. An Evidence-Based Medicine Approach to Antihyperglycemic Therapy in Diabetes Mellitus to Overcome Overtreatment. *Circulation*. 135, 180-195 (2017).
7. Chandalia M, Lutjohann D, von Bergmann K *et al*. Beneficial effects of high dietary fiber intake in patients with type 2 diabetes mellitus. *N Engl J Med*. 342, 1392-8 (2000).
8. Gething MJ. Role and regulation of the ER chaperone BiP. *Seminars in Cell and Developmental Biology*. 10, 465-472 (1999).
9. Schepers E, Meert N, Glorieux G *et al*. P-cresylsulphate, the main in vivo metabolite of p-cresol, activates leucocyte free radical production. *Nephrol Dial Transplant*. 22, 592-596 (2006).
10. Ricci Z, Ronco C, Amico GD *et al*. Practice patterns in the management of acute renal failure in the critically ill patient: an international survey. *Nephrol Dial Transplant*. 21, 690-696 (2006).