

PSOGENT DERMATOLOGY RESEARCH UNIT

Poster n°2

# **BLOCKING INTERLEUKIN-17 IN PSORIASIS:**

# **REAL-WORLD EXPERIENCE FROM THE PSOPLUS COHORT**

Schots L, Soenen R, Blanquart B, Thomas D, Lambert J • J Eur Acad Dermatol Venereol. 2022 Dec 23. doi: 10.1111/jdv.18827

#### **INTRODUCTION**

**1.** RCTs show superior short- and long-term efficacy of novel class biologics (incl. IL-17i) compared to older classes in Pso. However, daily practice and registry data might better reflect real-world effectiveness of biologics. 2. Lack of effectiveness is the major reported reason for biologic discontinuation in real-world practice. Therefore, the one-dose-fits-all and trial-and-error approaches in the use of biologics need to be revised in order to prescribe biologics in a more personalized and rational manner in both non- and excellent responders. A tool to support a more evidence-based use of biologics could be TDM based on C<sub>t</sub>.

#### OBJECTIVES

## METHODS

To report on:

**1. IL-17i effectiveness** 

- **2. Treatment modifications**
- 3. C<sub>t</sub> utility in daily practice



Data from IL-17i treated (SEC, IXE, BRO) Pso patients from PsoPlus clinic, Dermatology dpt. Ghent University Hospital, Belgium



#### 2. Effectiveness

#### 1. Cohort

111 patients Med. age 47.0 [38.0-60.0] yrs 066%

Caucasian 93.7%

### Med. BMI 26.9 [24.3-31.9] kg/m<sup>2</sup> Med. age Pso onset 24.0 [18.0-33.0] yrs Psoriatic arthritis 30.6%

134 IL-17i courses



- 97.0% and 81.2% obtained near CSC and CSC during maintenance lacksquare
- For SEC, IXE and BRO, 98.1%, 100.0% and 86.7% achieved PASI≤2 (*P* = 0.047), and  ${}^{\bullet}$ 76.0%, 82.9% and 68.8% reached PASI=0, resp. (*P* = 0.465)
- Stable remission during maintenance was observed in 54.1% (no difference between IL-17i) lacksquare

#### Overall drug survival = 69.0 months



#### 47.8% SEC, 37.3% IXE, 14.9% BRO



## 4. C<sub>t</sub> utility in daily practice (n=20)

- C<sub>+</sub>s were interpreted post hoc\*
- In SEC or IXE treated patients
- Successful updosed patients: low C<sub>t</sub>
- NR to DE was observed as well

CONCLUSIONS

- Switched cases: low, adequate or high C<sub>t</sub>
- DDE was successful in patients with high  $C_{+}s$ , but not in patients with low  $C_{+}s$

- In 85%  $\rightarrow$  clinical decision was in accordance with the C<sub>t</sub> (e.g. substantiated need for DE)
  - In 15%  $\rightarrow$  C<sub>t</sub> would have led to another clinical decision if known at that time
  - \*Soenen R et al. JID 2019; Reich K et al. JID 2018

BRO: brodalumab; BMI: body mass index; CSC: complete skin clearance; C<sub>+</sub>: trough concentration; DDE; dose deescalation; DE: dose escalation; IL-17i: interleukin 17 inhibitors; IXE: ixekizumab; Med.: median; NR: non-response; PASI: Psoriasis Area and Severity Index; Pso: psoriasis; RCT: randomized controlled trial; SEC: secukinumab; TDM: therapeutic drug monitoring; yrs: years

#### Contact

- IL-17i are very effective drugs for Pso, with IXE as leading biologic.
- Prior bio-experience seemed to impact IL-17i drug survival.
- Treatment modifications were mainly performed in case of insufficient response, primarily via switch and DE, and least frequently in IXE patients.
- C<sub>t</sub>s might rationalize clinical decision making, however there is need for standardized algorithms (TDM) to corroborate its use.

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