EXAMINING THE RISK OF SERIOUS INFECTION IN PATIENTS WITH PSORIASIS ON BIOLOGIC THERAPIES
A Prospective Cohort Study from the British Association of Dermatologists Biologic Interventions Register (BADBIR)


British Association of Dermatologists Biologic Interventions Register, The University of Manchester, Manchester Science Park, Manchester, United Kingdom, M15 6ZL

*Correspondence and Centre for Pharmacoeconomics and Drug利用, The University of Manchester, Manchester Academic Health Sciences Centre, NHS Manchester Biomedical Research Centre, Manchester, United Kingdom M13 9PT

SUMMARY

Etanercept, adalimumab and ustekinumab are not associated with a higher risk of serious infections when compared to non-biologic systemic therapies in patients with psoriasis.

The risk of serious infection should not be a discriminator when choosing between these three biologic therapies.

Healthcare professionals should be equally vigilant for serious infections when looking after patients with psoriasis on systemic non-biologic or biologic therapies.

BACKGROUND

1. Adverse events (AE) can lead to discontinuation of biologics for the treatment of psoriasis1.

2. Serious infections lead to significant morbidity and mortality.

3. Randomised clinical trials are not powered to investigate AEs and have low external validity2,3.

4. Risk of serious infection in patients with psoriasis on biologics is currently not well-understood.

AIM

To determine whether etanercept, adalimumab and ustekinumab are associated with a higher risk of serious infection as compared to non-biologic systemic therapies for psoriasis.

RESULTS

9038 eligible patients in total

953 Ustekinumab

3421 Non-biologics

1352 Etanercept

3271 Adalimumab

FIGURE 1: Number of patients and median follow-up in each cohort.

METHODS

British Association of Dermatologists Biologic Interventions Register (BADBIR) - prospective safety registry of patients with psoriasis established in 2007 in the UK and the Republic of Ireland.

BIOLOGICS

Etanercept

Adalimumab

Ustekinumab

NON-BIOLOGICS

Methotrexate

Acitretin

Ciclosporin

Fumaric acid esters

Psoralen-UVA

Hydroxyurea

Figure 2: Forest plot showing the reduction in expected percentage bias for the individual co-variates after IPTW propensity score weighting using adalimumab as an example.

DISCUSSION

1. Crude incidence rates of serious infections for etanercept and adalimumab are similar to reported figures; ustekinumab rates are higher than reported figures.

2. Adjusted results similar to PSOLAR (European collaboration of psoriasis registries) - no increased risk with tumour necrosis factor-alpha inhibitors compared with acitretin, methotrexate or ciclosporin.

3. Different to results from PSOLAR (US based psoriasis registry) which found higher risk with adalimumab compared with acitretin/phototherapy.

Strengthenes and weaknesses of the study

Real-world data

Large sample size

Detailed data capture

Involvement of 153 UK and ROI centres

Fully industry independent data analysis

Non-randomisation

Residual confounding

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*Deceased

**Professor of Dermatology, Manchester Academic Health Sciences Centre, NHS Manchester Biomedical Research Centre, Manchester, United Kingdom.

http://personalpages.manchester.ac.uk/staff/zenas.yiu

zenas.yiu@manchester.ac.uk
