

Short-term risk and long-term incidence rate of infection and malignancy with IL-23 inhibitors in adult patients with psoriasis and psoriatic arthritis: a systematic review and meta-analysis

Study information

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Background

The risk of infection and malignancy could be a major concern of psoriasis patients treated with IL-23 inhibitors, particularly those who receive long-term treatments.

Objective

Evaluate the short-term risk and long-term incidence rate (more than 52 weeks) of infection and malignancy with IL-23 inhibitors in adult patients with plaque psoriasis (PsO) and psoriatic arthritis (PsA).

Results

The present study included 14 randomized placebo-controlled studies (including 7,853 patients) and 9 extension trials (including 27440.2 patient-years, PYs). The pooled risk ratios (RRs) for short-term risk of serious infection or malignancy were not increased with IL-23 inhibitors, though overall infection was moderately increased. Long-term incidence rate was 1.09/100PYs of serious infection, 48.50/100PYs of overall infection, 0.40/100PYs of non-melanoma skin cancer (NMSC), and 0.54/100PYs of malignancies excluding NMSC. The incidence rates seemed not increased with the duration prolonged.

Conclusion

Our study supports that IL-23 inhibitors can be safely used for PsO and PsA, regardless of the treatment durations. However, careful monitoring is warranted for overall infection following IL-23 inhibitors.

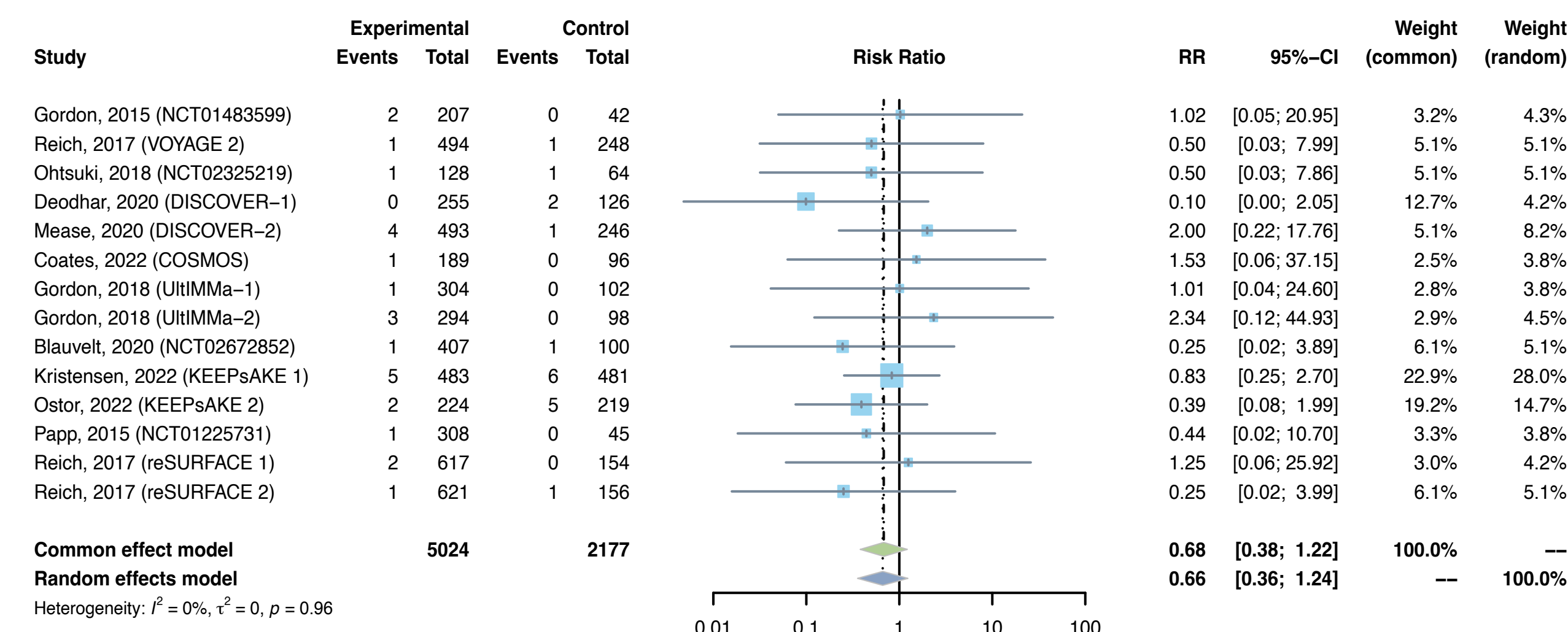


Figure 1. The pooled RR for the short-term risk of serious infection

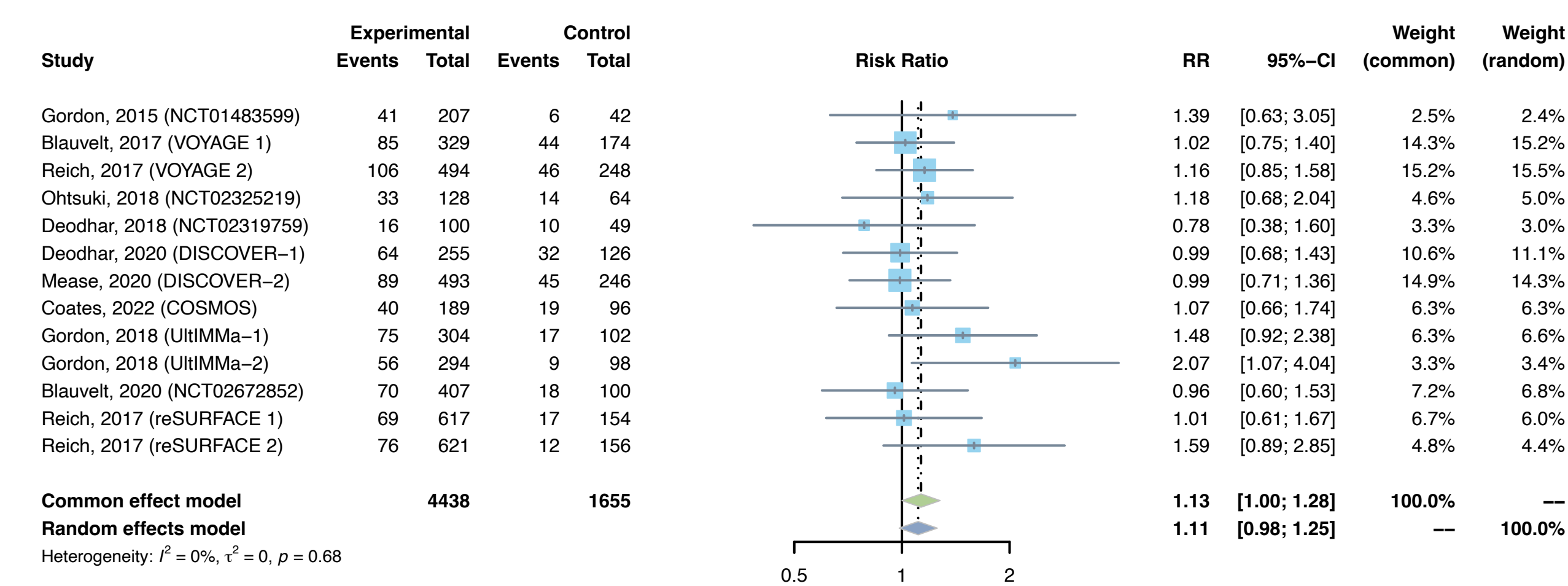


Figure 2. The pooled RR for the short-term risk of overall infection

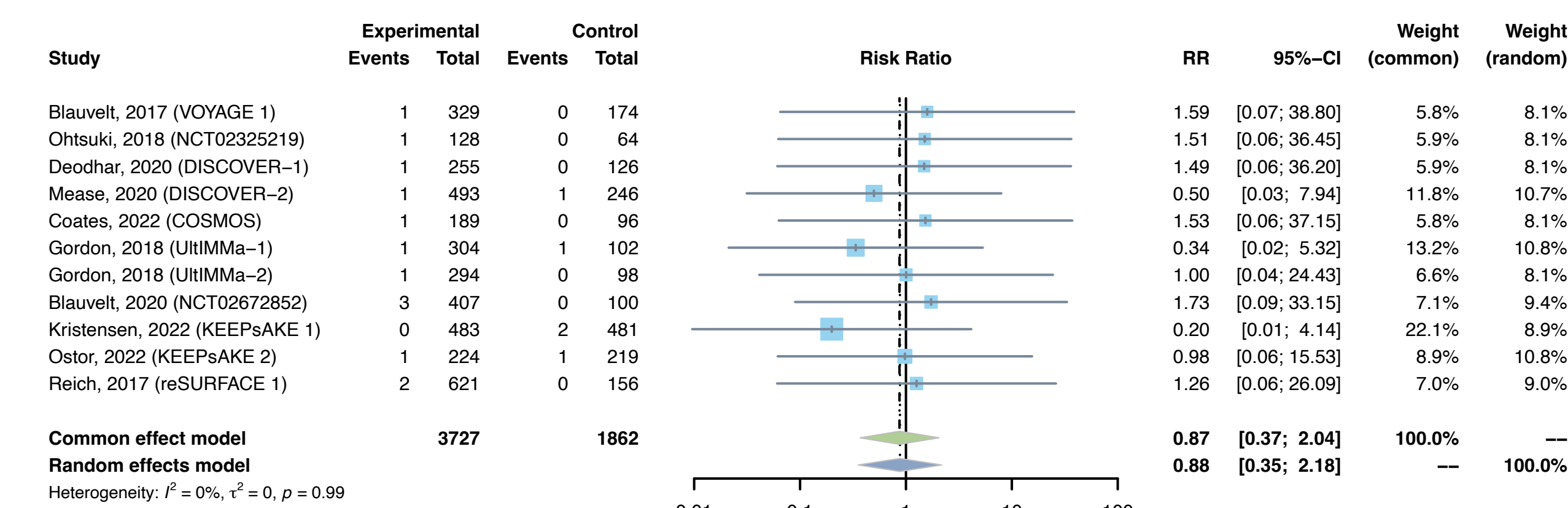


Figure 3. The pooled RR for the short-term risk of malignancy

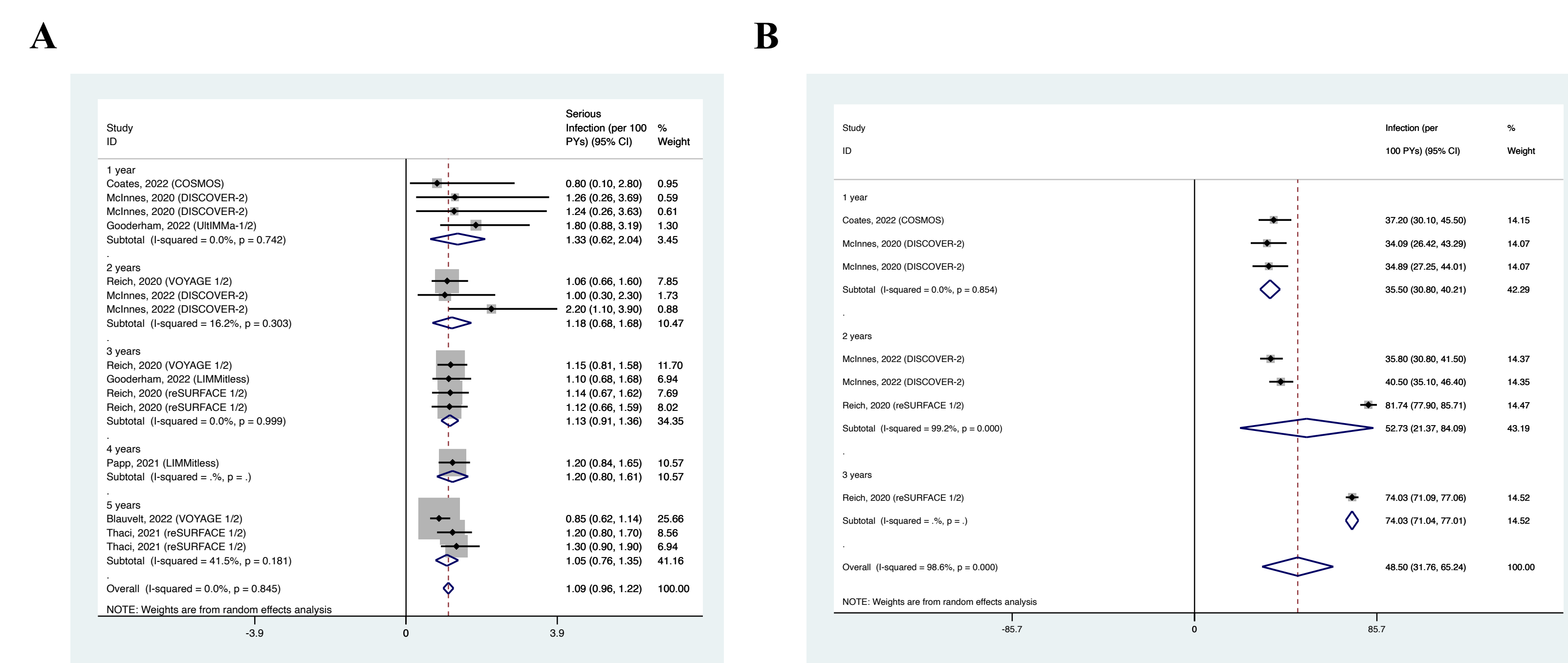


Figure 4. The pooled long-term exposure-adjusted incidence rate (EAIR) stratified by duration of (A) serious infection; (B) overall infection

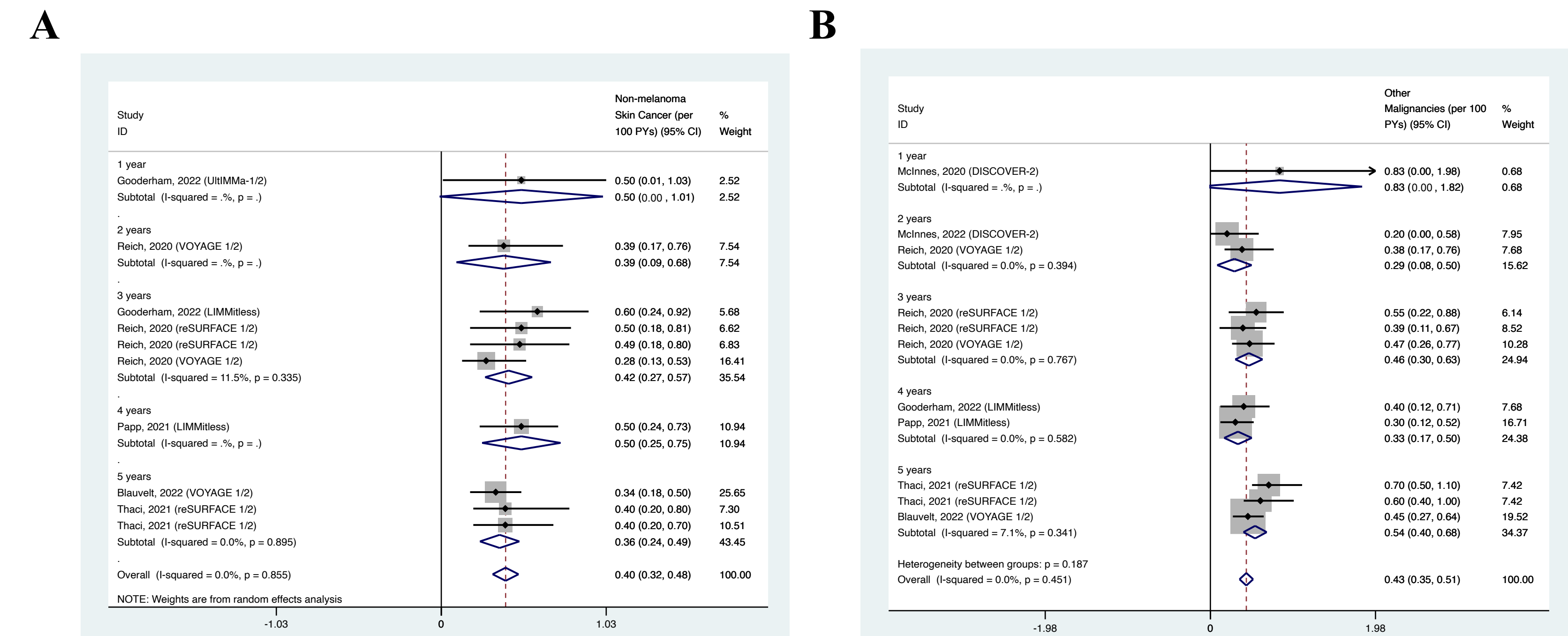


Figure 5. The pooled long-term exposure-adjusted incidence rate (EAIR) stratified by duration of (A) NMSC; (B) malignancy excluding NMSC