



**Title** Adalimumab, Alefacept, Efalizumab, Etanercept, and Infliximab for Severe Psoriasis Vulgaris in Adults: Budget Impact Analysis and Review of Comparative Clinical- and Cost Effectiveness

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## Aim

To facilitate evidence-informed decisions by providing:

- comparative evidence on the clinical and cost effectiveness of adalimumab, alefacept, efalizumab, etanercept, and infliximab (targeted immune modulators)
- budget impact analysis based on these treatments being reimbursed by public drug plans.

## Conclusions and results

No comparative conclusions can be made regarding the relative efficacy of targeted immune modulators (TIMs) in treating adults with severe plaque psoriasis. Relative to placebo, each TIM therapy (except adalimumab, no information was retrieved) resulted in the clinical improvement of plaque psoriasis as measured by scores on the PASI, PGA, and DLQI in the short term (up to 24 weeks). Advisory warnings regarding treatment with the TIMs studied here have come from Canadian and international organizations, but no conclusions could be drawn regarding adverse events associated with TIMs for periods longer than one year.

In Canada, treating adult patients with severe plaque psoriasis with a TIM was estimated to cost 30.1 million Canadian dollars annually. This estimate was sensitive to assumptions on Canadian psoriasis prevalence rates and assumptions about the proportion of patients taking an oral systemic who would transfer to a TIM therapy.

## Recommendations

None given.

## Methods

Published literature was obtained by cross searching several electronic databases. The clinical review included HTAs, systematic reviews (SRs), meta-analyses, RCTs, and observational studies that focused on comparative (head-to-head) evidence, and HTAs, SRs, or meta-analyses comparing more than one TIM on at least one efficacy, clinical effectiveness, or QoL outcome.

Reports were included in the economic review if they described the severity of severe psoriasis, the use of TIMs, and the cost or economic analysis between at least 2 TIMs.

## Further research/reviews required

Given the potential budget impact of funding TIMs for severe plaque psoriasis, comparative information on long-term benefits, harms, and cost effectiveness should be gathered to support funding decisions.