Further investigations using larger cohorts are warranted to better understand economic and patient-reported outcomes associated with biologic treatment in psoriasis.

A COST-EFFECTIVENESS ANALYSIS OF BIOLOGIC THERAPIES FOR THE TREATMENT OF CHRONIC PLAQUE PSORIASIS

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OBJECTIVES: Biologic therapies have been shown to be a safe and effective treatment for chronic plaque psoriasis. However, there appear to be notable differences in effectiveness between treatment options. Given the considerable costs of these treatments, their relative cost-effectiveness is an important consideration.

METHODS: A cost-effectiveness model was developed to estimate the incremental cost per responder associated with each biologic licensed in the UK for psoriasis. Data on response, defined as Psoriasis Area Severity Index (PASI) 75 or 90, were derived from randomized controlled trials for efalizumab, etanercept and infliximab. An ordered probit model was used to model response rates jointly. Treatment effects, defined as response rates, and direct health care costs from published sources were modelled over a 1-year time-horizon. Costs included in the analysis comprised drug acquisition, monitoring and administration costs, as well as costs associated with outpatient and inpatient hospital episodes. Treatment non-responders were assumed to receive best supportive care. All licensed regimens were included as potential treatment options.

RESULTS: In the analysis utilising PASI 75 response, efalizumab and etanercept 25 mg twice weekly (BIW) continuous, were dominated by other regimens. Of the remaining strategies, etanercept 25 mg BIW had the lowest ICER vs. supportive care (response rate 31.78%, £9836 per responder gained), followed by infliximab (78.79%, £11,302) and then etanercept 50 mg continuous (43.99%, £12,200). For PASI 90 response, the same two strategies were dominated. However infliximab was the most effective and had the lowest ICER vs. supportive care (response rate 56.65%, £15,721 per responder gained) followed by etanercept 25 mg BIW (12.34%, £22,907) and then etanercept 50 mg continuous (21.58%, £26,853). CONCLUSIONS: Provided decision-makers are willing to pay up to approximately £12,000 to gain an additional PASI 75 responder and also value clearance of symptoms (PASI 90 responder), treatment with infliximab is likely to represent the most cost-effective strategy.

COST-EFFECTIVENESS OF TOPICAL CALCIPOTRIOL/BETAMETHASONE DIPROPIONATE TWO-COMPONENT PRODUCT IN A SCOTTISH CARE MODEL

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OBJECTIVES: UVB phototherapy is an effective treatment for psoriasis, typically introduced after a patient with widespread disease has failed to respond to a couple of topical agents. A pharmacoeconomic model was devised to analyse the cost implications of different treatment combinations based on a Scottish model of care.

METHODS: A calcipotriol/betamethasone dipropionate two-component product was assessed alongside two of the UK’s most commonly prescribed topical antipsoriatic agents (calcipotriol and betamethasone valerate in several different treatment regimens to determine the most cost-effective treatment for Markov chain approach was used to model the progression of psoriatic patients through the response or non-response to 4 weeks treatment with different topical agents. The patient pathway consisted of two four-week treatments with first and second line topical agents before referral to secondary care and phototherapy. Non-responders (i.e. those who did not achieve PASI-75) on first line treatment were then given a second line topical agent. Those who failed again were referred to secondary care and waited 6 months before completing 20 treatments of phototherapy. One hundred patients were evaluated in each of the six different treatment pathways over one year to determine overall cost per patient.

RESULTS: Mean annual cost per patient showed that the most cost-effective treatment regimen used the two compound product as first and second line treatments. It was 19.7% cheaper (≤£690.99 vs ≤£860.62) and 32% fewer patients required phototherapy (30 vs. 44) when compared to the next best regimen which used the two-compound product and calcipotriol as first and second line treatments respectively. CONCLUSION: This pharmacoeconomic evaluation demonstrates that the two-compound product, when used as an initial therapy in psoriasis, could result in a reduction in overall costs per patient and in fewer patients requiring phototherapy. This in turn, could improve access to phototherapy for more patients with light-responsive dermatoses.