The Royal College of Pathologists
Pathology: the science behind the cure

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On Behalf of the Royal College of Pathologists

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Etanercept, abatacept, adalimumab and tocilizumab for treating juvenile idiopathic arthritis (including review of TA35)

Biologics (Etanercept, abatacept, adalimumab and tocilizumab) have been developed based on a better understanding of the pathophysiology of autoimmune disorders. Their use in JIA has, no doubt, resulted in improved outcomes, permitting better control of disease in patients refractory to previous medications.

A systematic review by Otten M H, et al, examined all available efficacy data from randomised controlled trials performed in JIA with inclusion of biological agents. Indirect comparisons identified no significant differences in short-term efficacy. The most common adverse events reported with biologics are injection site reactions and infections.

There are no adequate data with respect to both long-term effectiveness and safety (increased risk of malignancy and other autoimmune diseases).

Head-to-head trials are required to decide on the best biological treatment for JIA. Such data will be important to estimate value for money for treating JIA with biologic drugs over the long term.

The following are two useful references for the efficacy and cost of using biologics in JIA.

Otten MH et al. Efficacy of biological agents in juvenile idiopathic arthritis: a systematic review using indirect comparisons. Ann Rheum Dis. 2013 Nov;72(11):1806-12.

Ungar WJ et al. Cost-effectiveness of biologics in polyarticular-course juvenile idiopathic arthritis patients unresponsive to disease-modifying antirheumatic drugs. Arthritis Care Res (Hoboken). 2011 Jan;63(1):111-9

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