Project Summary Report

YODA Project Protocol #: 2016-0919

Comparative efficacy of biologics in resolving extraintestinal manifestations of IBD: a systematic review and meta-analysis

Status: Analysis completed and article has been prepared for dissemination, publication remains pending

Abstract from article prepared by investigators:

Objective
To assess the comparative efficacy of biologics in reducing the risk of developing Inflammatory Bowel Disease (IBD) associated extraintestinal manifestations (EIMs).

Methods
We included randomized placebo-controlled trials studying the efficacy of biologics in inducing and maintaining remission of Crohn's disease (CD) or ulcerative colitis (UC) and in which EIMs were assessed. We also included trials examining the efficacy of biologics in inducing and maintaining remission of spondyloarthropathies which included IBD patients. We searched MEDLINE (1946 to July 2019), EMBASE (1988 to July 2019), and the Cochrane Central Register of Controlled Trials (Issue 7, July 2019). Individualized participant data were obtained from trial sponsors. Efficacy was assessed by comparing the EIM-free period after biologic treatment start date between treatment groups.

Results
We identified 2,934 citations, from which we included 31 trials (12,739 participants). There was an increased risk of EIMs in subjects while receiving an anti-α4β7 antibody compared to those receiving TNFα inhibitors or an anti-interleukin-12/23 antibody (OR 1.44, p=0.0002). Among TNFα inhibitors, infliximab had the highest risk of EIMs compared to adalimumab and certolizumab pegol (OR 2.635, p<0.0001).

Conclusions
Patients with IBD receiving treatment with TNFα inhibitors (adalimumab and certolizumab pegol) or anti-interleukin-12/23 antibodies had a decreased risk of developing EIMs over one year when compared to patients on anti-$\alpha 4\beta 7$ antibody treatment. This will need to be further verified in prospective studies.