OBJECTIVES: To perform SR with MA of all randomized controlled trials (RCT) comparing the efficacy of BEV-CT versus CT alone in previously untreated locally advanced or metastatic NSCLC. METHODS: We searched MEDLINE, EMBASE, LILACS, and CENTRAL among others. Primary end points were overall survival (OS) and progression-free survival (PFS). Adverse events (AEs) were analyzed. Extracted data were combined using hazard ratio (HR) or risk ratio (RR) with 95% confidence intervals (CI 95%). RESULTS: 544 references were identified, comprising 2020 patients were included. Overall response rate (RR = 0.51; CI 95% = 0.44 to 0.64; P = 0.00001) and PFS were higher in BEV-CT (HR = 0.71; CI 95% = 0.63 to 0.80; P = 0.00001), however with significant heterogeneity (p = 4.9 × 10⁻⁶; df = 2 [P = 0.11]; I² = 51%; P = 0.037), Random-effects model analysis favored BEV-CT. OS was higher in BEV-CT but with significant heterogeneity (p = 5.92 × 10⁻²; df = 3 [P = 0.12]; I² = 49%) and random-effects model analysis was not statistically significant (HR = 0.86, CI 95% = 0.71 to 1.05; P = 0.13). Neutropenia (RR = 0.77; CI 95% = 0.65 to 0.91; P = 0.012) and febrile neutropenia (RR = 0.42; CI 95% = 0.22 to 0.81; P = 0.009) were higher on BEV-CT. Rates of anemia (RR = 1.41; CI 95% = 0.93 to 2.13; P = 0.1) and thrombocytopenia (RR = 0.91; CI 95% = 0.69 to 1.20; P = 0.50) were similar. Non-hematologic toxicities were higher on BEV-CT hemoptysis (RR = 0.26; CI 95% = 0.09 to 0.90; P = 0.03) and hypertension (RR = 0.15; CI 95% = 0.07 to 0.30; P = 0.008), proteinuria (RR = 0.05; CI 95% = 0.01 to 0.41; P = 0.005), venous thromboembolic events (RR = 0.87; CI 95% = 0.51 to 1.47; P = 0.66), vomiting (RR = 0.41; CI 95% = 0.22 to 0.77; P = 0.005; rash (RR = 0.19; CI 95% = 0.04 to 0.88; P = 0.03); epistaxis (RR = 0.32; CI 95% = 0.03 to 3.10; P = 0.33) and bleeding events (RR = 0.27; CI 95% = 0.13 to 0.56; P = 0.0004). CONCLUSIONS: The combination BEV-CT increased the response rate and PFS in patients with NSCLC. Benefits in overall survival remain uncertain, and toxicity rates were higher in the combination group.

CONCLUSIONS: The real-world cost-effectiveness of oxaliplatin plus fluoropyrimidines versus fluoropyrimidines only, as an adjuvant treatment of colon cancer. METHODS: A Markov model was developed to estimate lifetime costs and quality-adjusted life-years (QALYs) from a hospital perspective. Dutch real-world (RW) population-based data on use, costs, and disease-free survival after oxaliplatin use were combined with published efficacy data from the pivotal clinical registration trial (MOSAIC trial). Eighty-two percent of the patients in the RW study fulfilled the MOSAIC trial eligibility criteria (“eligibles”); the other 18% (“ineligibles”) had a poorer prognosis. The efficacy of the comparator was modelled using MOSAIC trial data. Cost-effectiveness analyses (CEAs) were performed for four different scenarios: 1) CEA based on MOSAIC trial patients; 2) CEA using eligible RW patients; 3) CEA using both eligible and ineligible, assuming that oxaliplatin had an equal effect in both groups; and 4) CEA using eligible and ineligible, assuming oxaliplatin had no effect among ineligible. RESULTS: MOSAIC and eligible RW patients had similar 2-year disease-free survivals (79% vs. 78%). Oxaliplatin showed an incremental QALY gain of 0.78, 0.37, 0.81, and 0.30, and incremental costs of €513,103, €13,278, €13,225, and €13,456 in scenarios 1 to 4, respectively. The corresponding incremental cost-effectiveness ratios (ICERs) were €15,185, €18,115, €16,254, and €22,387 in scenarios 1 to 4, respectively. Sensitivity analyses of input parameters and model assumptions produced only minimal differences in the estimated ICERs showing the robustness of the model results. CONCLUSIONS: The real-world cost-effectiveness of oxaliplatin plus fluoropyrimidines versus fluoropyrimidines for the treatment of colon cancer can be estimated using different scenarios. We found that the various estimates were very similar, and all suggest that oxaliplatin is cost-effective.