Evaluating the impact of obesity on rheumatoid arthritis: A longitudinal analysis of infliximab dosing and infusion intervals across 30 infusions

Conclusions: Infliximab (IFX) is an infusible anti-tumor necrosis factor (anti-TNF) drug used in the treatment of rheumatoid arthritis (RA), with Food and Drug Administration (FDA) recommended administrations of 3 mg/kg at weeks 0, 2, 6, and every 8 weeks thereafter. Dosage can be increased up to 10 mg/kg of body weight at 8-week intervals to every 4 weeks may be appropriate based on individual response. Limited data are available presenting weight-based dosing, total quantity administered, and infusion intervals simultaneously over the course of 30 infusions. The objective of this study was to calculate weight-based dosing, total quantity infused, and infusion intervals for RA patients receiving IFX. METHODS: An event-level analysis was conducted using medical/pharmacy claims from the IMS LifeLink™ Health Plan database. Inclusion criteria included: IFX initiation January 1, 2004-December 31, 2007 (i.e., index date); patient age ≥ 18 years old; 2 RA diagnosis codes (ICD-9-CM); and 365 days of pre-index administration with anti-TNF during the 6 months prior to index date; or evidence of taking abatacept or rituximab during the 6 months prior to index date; or evidence of taking adalimumab or etanercept for at least 12 months prior to index date. Patients were excluded if they had: psoriatic arthritis (PsA), and ankylosing spondylitis (AS). This study evaluated co morbidities and other diseases in the United States.

Results: Among obese adults the unadjusted prevalence of hypertension was (34.40%), followed by dyslipidemia (21.87%), diabetes (16.34%) and asthma (6.92%). Adjusted prevalence of chronic diseases was always higher among obese patients compared to non-obese and the entire population. The prevalence ratio for diabetes was 3.06 (95% CI: 2.82 – 3.30) at the age of 20 and was 2.20 (95% CI: 2.09 – 2.31) at 70 years. At any age, obesity increases the likelihood of these conditions by at least 50% and is associated with increased mortality. Under-utilization was significantly associated with incremental increases in total healthcare costs for patients with under-utilization, compared to receiving recommended dosing. The estimated average annual per patient cost of golimumab would be $1,731.48 per 50 mg.

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