



# Long-term cost-effectiveness analysis of infliximab, etanercept and adalimumab in rheumatoid arthritis patients in real-life clinical practice

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## BACKGROUND

Anti-tumour necrosis factor- $\alpha$  agents are effective in the management of rheumatoid arthritis (RA) patients, but superiority among them has not been established.

Also, long-term pharmacoeconomic studies examining the cost-effectiveness of biological agents in real-life clinical practice are scarce.

## OBJECTIVES

To assess the efficiency, in terms of cost to achieve clinical remission (CR: DAS28 value $<$ 2.6), of infliximab, etanercept and adalimumab in a real clinical setting after two years of treatment.

Similarly, efficiency is also assessed for low disease activity (LDA DAS28 value $<$ 3.2)

## METHODS

All patients diagnosed of RA in a tertiary referral hospital attended through an interdisciplinary consensus protocol who started treatment with infliximab, etanercept or adalimumab between 1st January 2007 and 2012 were included

### Effectiveness

% of patients achieving CR (DAS28 value $<$ 2,6)

% of patients achieving LDA (DAS28 value $<$ 3,2 after two years of treatment

### Costs

Hospital perspective (Direct healthcare costs):  
drug acquisition +  
diagnostic tests +  
medical services

### Cost-effectiveness

Ratio Direct healthcare cost/  
% patients achieving clinical remission and low disease activity

## RESULTS

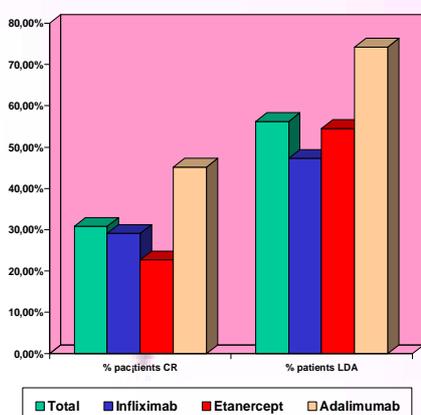
130 patients were included (55 on infliximab, 44 on etanercept and 31 on adalimumab)

**Effectiveness:** 45.20% of patients on adalimumab achieved clinical remission after two years, versus 29.1% on infliximab ( $p=0.133$ ) and 22.7% on etanercept ( $p=0.040$ ), with no significant differences between etanercept and infliximab ( $p=0.475$ ).

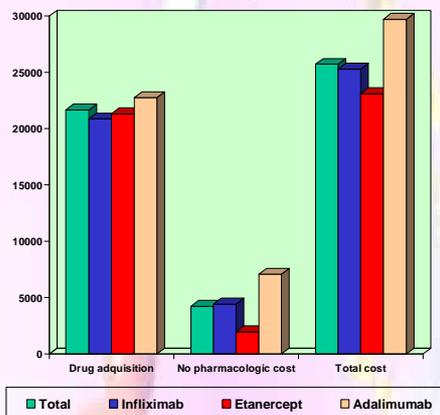
**Cost:** Mean total health direct costs at two years were 29,857.67 €, 25,328.60 € and 23,309.09 € for adalimumab, infliximab and etanercept, respectively.

**Cost-effectiveness:** The mean cost (IC95%) to achieve CR after two years with adalimumab, infliximab and etanercept were 66,057€ (48,038-84,076), 87,040 € (78,496-95,584) and 102,683€ (94,559-110,807) respectively. Adalimumab resulted more efficient than etanercept ( $p<0,001$ ) and infliximab ( $p=0,026$ ), without statistically significant differences between etanercept and infliximab ( $p=0.086$ )

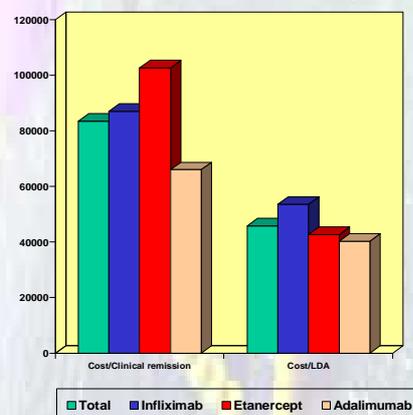
Effectiveness at two years



Median Cost (€) at two years



Cost-effectiveness at two years



## CONCLUSIONS

Adalimumab resulted the most efficient treatment to achieve clinical remission in real-life clinical practice in our hospital during the period examined.