

# ANTI-TNF- DRUGS: PHARMACOECONOMIC ANALYSIS AND PROPER USE IN PHARMACOLOGICAL TREATMENT IN RHEUMATOID ARTHRITIS

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**Introduction:** Rheumatoid arthritis (RA) is a chronic inflammatory disease: it causes pain, stiffness, swelling, joint destruction, leading to progressive functional limitation and disability. RA is characterized by heavy direct and indirect costs, which result in high economic impact on society.

Several classes of drugs characterize RA pharmacological treatment: NSAIDs, analgesics, corticosteroids, disease modifying antirheumatic drugs (DMARDs) both synthetic and biological. Among the latter, etanercept, adalimumab and infliximab are in the top twenty most expensive drugs in Piemonte. Therapeutic Plan is requested for these drugs prescription and consumption for RA perfectly reflects annually regional expenditure.

Aim of this study is to evaluate the biological treatment impact on direct and indirect costs of RA in Piemonte, in order to determinate the disease cost from the society point of view.

**Methods:** A systematic review of the pharmacoeconomic literature showed that: anti-TNF- in combination with methotrexate (MTX) are cost-effective in treating MTX monotherapy-non responder patients; a second anti-TNF therapy is cost-effective in patients with inadequate clinical responses to a anti TNF- first treatment; rituximab and abatacept are cost-effective in patients with an inadequate response to anti-TNF- .

ICERs (Incremental Cost-Effectiveness Ratio) are strongly influenced by the progress of the disease and HAQ (Health Assessment Questionnaire) score.

It should be noted that pharmacoeconomic literature often analyzes only direct costs, therefore it doesn't consider the society point of view.

**Results and Conclusions:** We planned a perspective, open-label, observational, multicentric, cost-effectiveness analysis of RA biological drugs.

The study will be performed over eighteen population, RA affected and characterized by clinical indication to treatment with biological drugs at "time zero".

At the enrollment, each patient will be recorded through personal data, disease duration, disease activity score (DAS28, CDAI), functional impairment degree (HAQ and ACR functional class), radiological Sharp's index, systemic manifestations and comorbidities, prescribed biological drugs, any conventional DMARDs, steroids, NSAIDs and other concomitant treatments. The evaluation of each patient will be repeated every three months for one year. A questionnaire will be submitted every three months to patients, in order to assess the direct and indirect costs of RA.

Our analysis will not be only the determination of RA cost of illness, but it will also be the basis for cost-effectiveness evaluation projected on our regional reality.

