Economic and Clinical Impact of Advanced Therapies in Moderate-to-Severe Rheumatoid Arthritis in Spain: CIARA Study

CO-82

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INTRODUCTION

- Rheumatoid Arthritis (RA) is a chronic autoimmune disease that affects joints and multiple organs, with a prevalence of 0.82% in Spain. RA has an economic and clinical impact in patients and society.

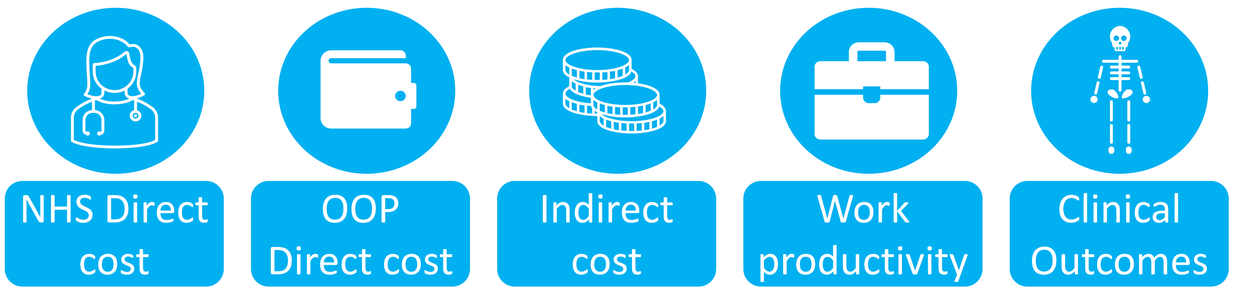
OBJECTIVES

The aim of this analysis is to assess the economic, clinical, and work-related impact of advanced therapies (biologic or targeted synthetic DMARDs) in patients with moderate-to-severe rheumatoid arthritis (RA) refractory to cs (conventional synthetic) or first-line b (biologic) DMARDs (Disease-Modifying Antirheumatic Drugs), from the perspectives of the Spanish National Health System (NHS), patients, and society.

METHODS

- CIARA is a 12-month, prospective, multicenter, observational cohort study.
- RA patients (DAS28-ESR ≥3.2) who had failed to conventional-synthetic-DMARD (csDMARD) or first biologic-DMARD, following usual clinical practice, were included.
- Direct and indirect costs, quality of life (EQ-5D-3L), work productivity (WPAI), and clinical outcomes (DAS28, CDAI, SDAI) were evaluated.
- Cost-utility analyses (CUA) were conducted using both deterministic and probabilistic models, including sensitivity analyses.

Figure 1. Analysis Components



- This study collected costs (€, year 2022), QALY and effectiveness at baseline (M0) and 12-month (M12) visits in patients who switch from csDMARD to an advanced therapy versus who switch from first bDMARD to an advanced therapy.
- Financing from three perspectives was considered: resources from society (i.e. work productivity), NHS (i.e. drugs [notified ex-factory prices], outpatient visits., hospitalizations) and patient (out-of-pocket).
- Effectiveness was expressed in Quality-Adjusted Life Years (QALY), calculated from patient´s responses (EQ-5D-3L).
- Result was presented as incremental cost-utility ratio (ICER) and a probabilistic sensitivity analysis was performed.
- Three Spanish cost-effective thresholds are considered (€21,000, €25,000 and €28,160 per QALY).

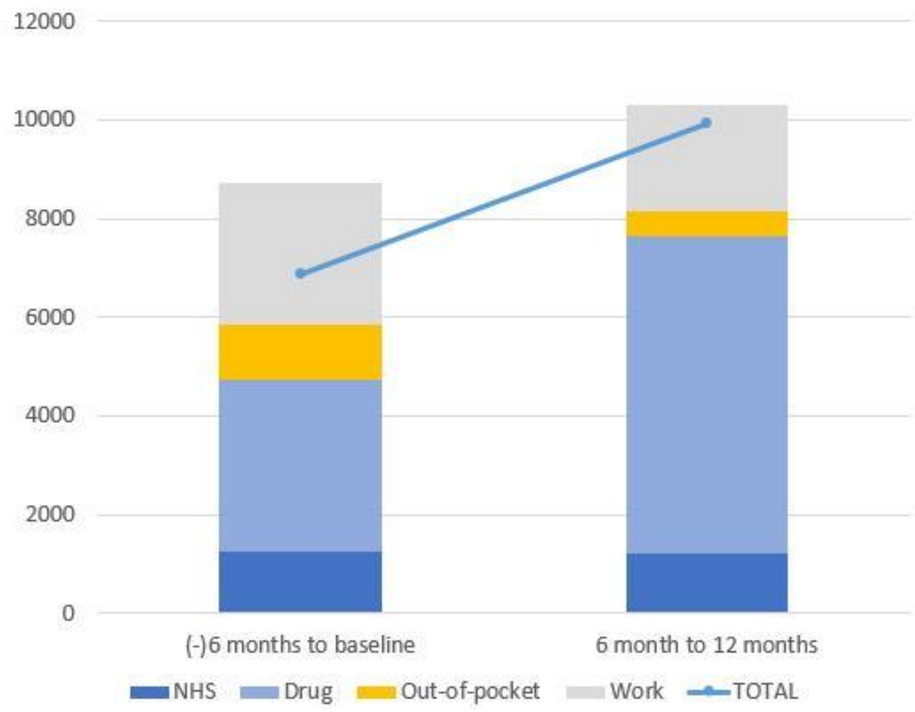
Table 1. Patients' clinical characteristics (N=118)

Age, years (N=118): Mean (SD)	54.92 (11.45)
Gender, women (N=118): n (%)	74 (75.5)
Symptoms onset age, years: Mean (SD)	45.22 (12.72)
RA Extraarticular affectation (N=118): n (%)	14 (11.9)
Erosions (N=118): n (%)	40 (33.9)
Rheumatoid Factor (N=118): n (%)	88 (74.6)
ACPA (N=118): n (%)	86 (72.9)
DAS28-ESR at basal visit (N=118): Mean (SD)	4.27 (1.04)

RESULTS

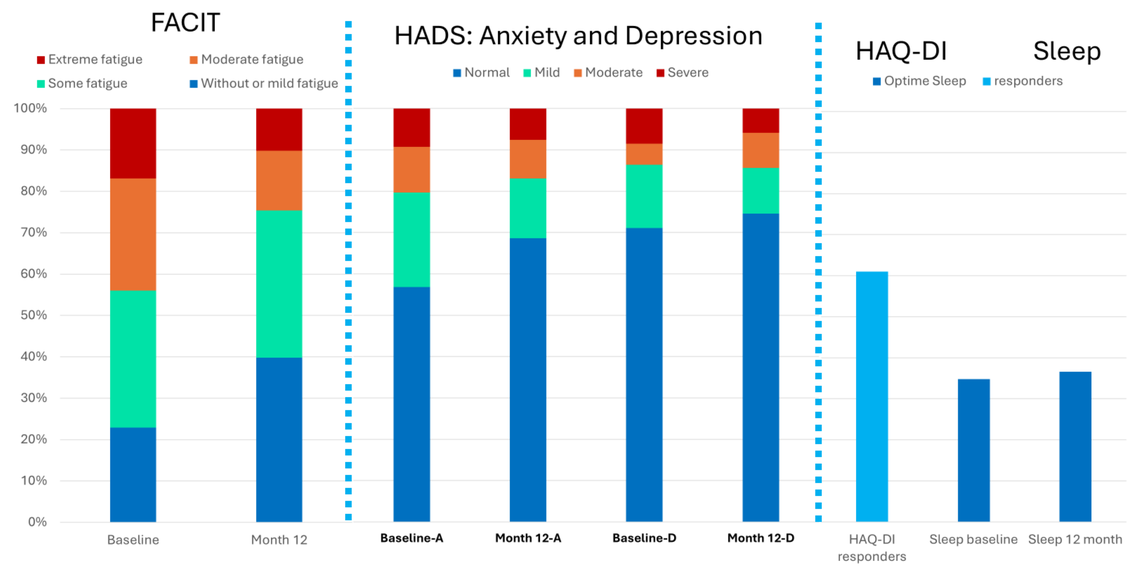
- At baseline, 100% of patients had moderate to severe disease activity (DAS28 ≥3.2). At month 12, 28.8% (34 patients) maintained DAS28 ≥3.2, 28.8% had LDA (2.6≤ DAS28 <3.2; 34 patients), and 42.4% were in remission (DAS28 <2.6; 50 patients).
- Total annual costs increased significantly after initiating advanced therapies [Mean (SD) 6,882 (595) basal visit vs 9,927 (598) at month 12; p < 0,001)], primarily due to pharmacological expenses [Mean (SD) 2,215 (280) basal visit vs 6,445 (142); p < 0,001)]. RD [(0.700 (0.627; 0.773)] vs from bDMARD [(0.565 (0.467; 0.664)], was found.
- However, significant reductions were observed in out-of-pocket [Mean(SD) 1,107 (208) basal visit vs 498 (131) at month 12; p < 0,001)] and a reduction also in labor-related costs [Mean(SD) 2,876 (402) basal visit vs 2,156 (423) at month 12; p = 0,394)], particularly among patients switching from a csDMARD (reduction of 59.3% in pocket expenses and of 30,6% in labor related cost).

Figure 2. Total cost per patient (€)



- The CUA showed that switching from a csDMARD was cost-effective in over 95% of simulations, with favorable ICERs across all perspectives.
- At 12 months, 42% of 118 patients achieved remission and 71% achieved remission or low disease activity, with significant improvements in pain, function, fatigue, sleep, anxiety, productivity, and quality of life.

Figure 3. Changes in fatigue, anxiety, depression, and sleep over 12 months



HAQ-DI responder decrease score ≥0.22 points.

CONCLUSIONS

- **Advanced therapies in patients with active RA refractory to prior treatments improve clinical outcomes and Quality of Life and are also cost-effective, reducing the economic burden on patients and society.**
- **The CIARA study provides robust evidence to support healthcare decision-making and resource allocation in RA management in Spain.**

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DISCLOSURE

This study was sponsored by Pfizer S.L.U.
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