

OPTIMIZED USE OF TUMOR NECROSIS FACTOR INHIBITORS IN RHEUMATOLOGY

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BACKGROUND

The introduction of tumour necrosis factor alpha (anti-TNF α) blockers in the treatment of rheumatic diseases has significantly changed patient prognosis. Nonetheless, it is important to optimise their use whenever possible due to their high cost and possible side effects. This abstract aims to evaluate if tapering doses is a cost efficient strategy.

PURPOSE

To describe the cost savings achieved from optimised etanercept and adalimumab in rheumatology patients and to analyse that dose reduction or increased administration interval do not compromise treatment effectiveness.

MATERIAL I MÈTODES

A retrospective study was conducted between September 2014 and September 2015 in rheumatology patients receiving etanercept or adalimumab who did not interrupt treatment during the study period and received optimised treatment. The pharmacy department database and medical history were reviewed. Dispensations to optimised patients were collected retrospectively, bearing in mind that they received a lower than usual dose, or a longer administration time interval than described in the data sheet (for etanercept >50 mg every 7 days or administration interval over 7 days vs adalimumab 40 mg or administration interval over 14 days). The savings obtained were calculated by subtracting the total annual amount using the standard scheme from the actual amount based on dispensations. To check treatment effectiveness, the Disease Activity Score (DAS28) was used, provided patients had maintained the optimisation schedule throughout the study period.

RESULTATS

Of the 48 patients treated with etanercept or adalimumab, 22 (46%) were optimised (Figure 1), 11 (ankylosing spondylitis), 10 (rheumatoid arthritis) and 1 (psoriatic arthritis) (table 1). Optimisations corresponded mainly to etanercept: 10 patients 25 mg every 7 days and 3 patients 50 mg for over 7 days; 9 patients received adalimumab for over 21 days (table 2). All patients had a DAS28 <2.6, without relapses.

Total savings per year compared with standard dose were 118.702,26€ (table 3, table 4), it results a 49,4% reduction over the standard cost.

Grafic. Patients standard dose/optimised dose

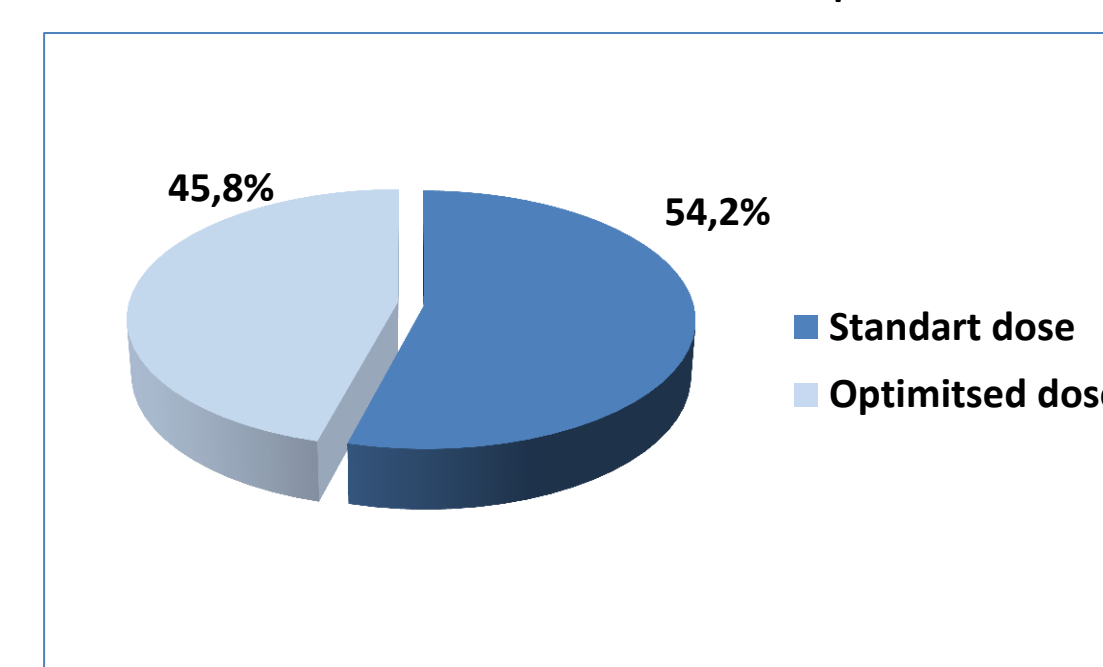


Table 1. Diagnosis patients optimised dosis

Diagnosis	n.	%
Ankysoling spondylitis	11	50%
Rheumatoid arthritis	10	45%
Psoriatic arthritis	1	5%

Table 2. Optimised dose

Drug	Administration interval	n	%
Etanercept 25mg	every 7 days	10	45%
Etanercept 50 mg	10 days	3	14%
Adalimumab 40mg	>21 days	9	41%

Table 3. Cost standard dose

Drug	Administration interval	Average annual cost per patient	Overall cost
Adalimumab 40mg	every 14 days	10.884,0 €	97.956,0 €
Etanercept 50 mg	every 7 days	10.934,6 €	142.150,3 €
Total cost standard dose			240.106,3 €

Table 4. Cost optimised dose

Drug	Administration interval	Average annual cost per patient	Overall cost
Etanercept 25 mg	every 7 days	5.467,3 €	54.673,2 €
Etanercept 50 mg	>10 days	5.543,3 €	16.629,8 €
Adalimumab 40mg	>21 days	5.566,8 €	50.101,1 €
Total cost optimised dose			121.404,1 €

CONCLUSIONS

Increased administration interval or dose reduction (etanercept) to optimise the use of anti-TNF α it seems to be a cost efficient strategy.