COST-EFFECTIVENESS ANALYSIS OF SECUKINUMAB IN ANKYLOSING SPONDYLITIS IN BIOLOGIC-NAIVE PATIENTS FROM THE PORTUGUESE PERSPECTIVE

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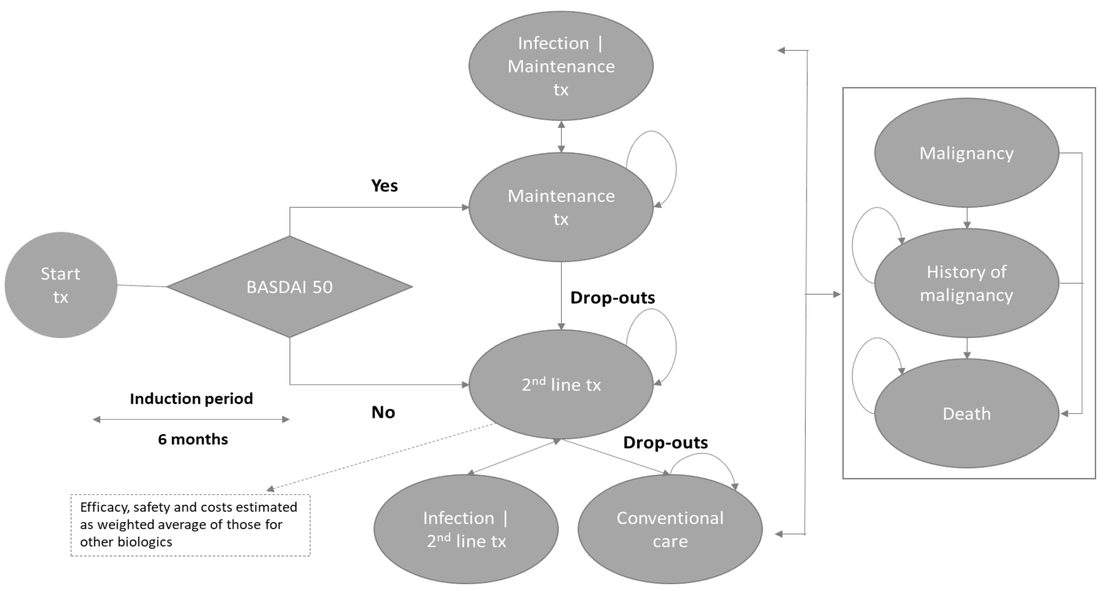
OBJECTIVES

- Biologic therapy has been successfully adopted for the treatment of patients with ankylosing spondylitis (AS).
- Several biologics are currently licensed in AS in Portugal including etanercept (ETN), infliximab (INF), adalimumab (ADA), golimumab (GOL), certolizumab pegol (CER P) and secukinumab (SEC).
- We aimed to assess the cost-effectiveness of secukinumab in AS biologic-naive patients from the Portuguese National Healthcare Service (NHS) perspective.

METHODS

- A decision analytic model (semi-Markov) was developed to evaluate the cost-effectiveness of secukinumab 150 mg over a lifetime horizon (60 years) against other biologics (including biosimilars), with the exception of infliximab, which is not a first-line anti-TNF in the context of the Portuguese current clinical practice.
- Model clinical inputs (short- and long-term changes in Bath Ankylosing Spondylitis Disease Activity Index [BASDAI] and in Bath Ankylosing Spondylitis Functional Index [BASFI], withdrawal rates, adverse events, resource use, costs, utilities and disutilities) were obtained from clinical trials [1-2], expert's opinion, and national official sources [3-5].
- Benefits were expressed as quality-adjusted life years (QALYs). Costs were expressed in 2019 Euros.
- Incremental cost per QALY gained (ICER) was estimated considering an annual discount rate of 5% for costs and benefits.
- Sensitivity analyses were performed.

Figure 1. Markov model



Tx: treatment; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index

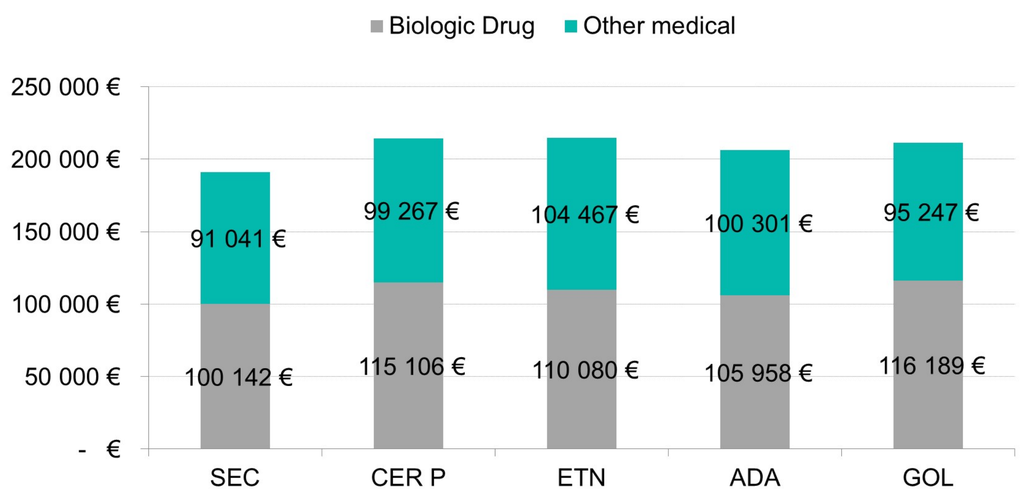
RESULTS

- Over a lifetime horizon, the model predicted that patients treated with secukinumab 150mg achieve the highest benefit at the lowest cost versus comparators (Table 1).
- Therefore, secukinumab dominated all comparators.
- In all treatments, about half of the cost is related with the acquisition of the biologic drug (Figure 2).
- Probabilistic sensitivity analysis showed that secukinumab demonstrated higher probability of achieving maximum net monetary benefit versus comparators at a threshold of €30,000/QALY.
- Cost-effectiveness acceptability curve obtained from the probabilistic sensitivity analysis is displayed in Figure 3.

Table 1. Incremental cost-effectiveness analysis

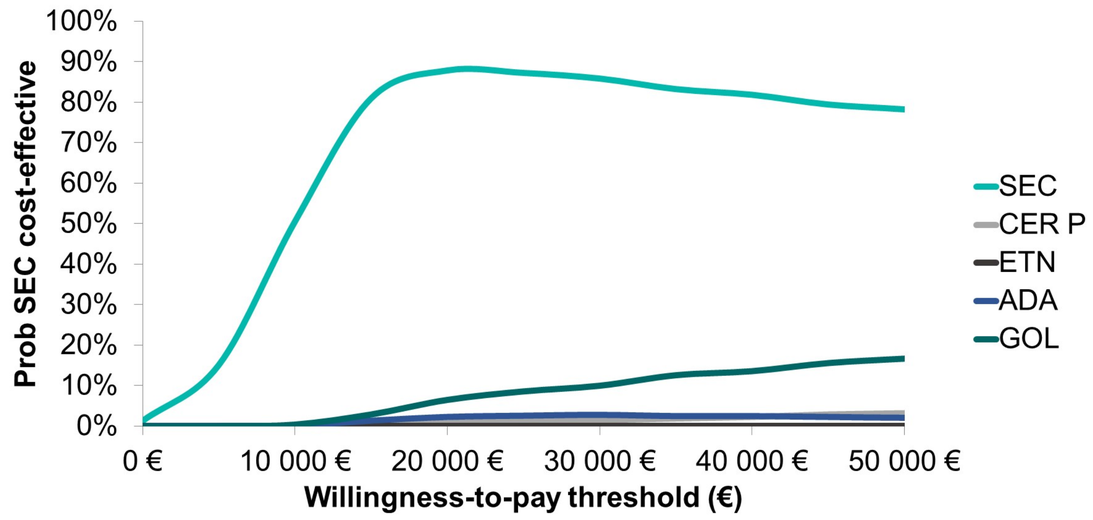
	QALY	Cost	ICER
Secukinumab	10.03	€191,182	-
Etanercept	9.28	€214,547	SEC dominates
Adalimumab	9.58	€206,259	SEC dominates
Certolizumab pegol	9.72	€214,373	SEC dominates
Golimumab	9.94	€211,435	SEC dominates

Figure 2. Total cost



Note: "Other medical" includes health care resources for monitoring, disease management, infections and malignancy

Figure 3. Probabilistic sensitivity analysis



CONCLUSIONS

- This analysis indicates that secukinumab is the most cost-effective treatment option for biologic-naive AS patients in Portugal.
- Treatment of AS with secukinumab may thus result in relevant benefits for patients and higher efficiency for the NHS.

REFERENCES

1. Braun J, Baraliakos X, Deodhar A, et al. Effect of secukinumab on clinical and radiographic outcomes in ankylosing spondylitis: 2-year results from the randomised phase III measure 1 study. Ann Rheum Dis. 2017;76(6):1070–1077.
2. Sieper J, Deodhar A, Marzo-Ortega H, et al. Secukinumab efficacy in anti-TNF-naive and anti-TNF-experienced subjects with active ankylosing spondylitis: results from the measure 2 study. Ann Rheum Dis. 2017;76(3):571–592.
3. Relatório Reuma PT, Dezembro 2018. Available at http://reuma.pt/pt_PT/Relatorios (accessed at 11Oct2019).
4. Portaria nº254/2018. Diário da República.
5. INE. Life Tables. Available at: www.ine.pt (acessed at 11Oct2019).

Disclosures

Pedro Laires, Catarina Silva, Joana Esparteiro – Employee, Novartis.

Disclaimer

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