

# Cost-Effectiveness of Certolizumab Pegol for the Treatment of Axial Spondyloarthritis in Turkey

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## OBJECTIVES

- The objective of this study was to assess the cost-effectiveness of CZP in axSpA patients in Turkey compared to other anti-TNFs.

## BACKGROUND

- Axial spondyloarthritis (axSpA) is a rheumatic disease that includes ankylosing spondylitis (AS) and non-radiographic axSpA (nr-axSpA).
- Certolizumab pegol (CZP) is a PEGylated Fc-free anti-TNF, indicated for the treatment of axSpA in Turkey.

## METHODS

- A Markov model was developed to estimate costs and outcomes associated with CZP and comparator treatment.
- The analysis was undertaken from the Turkish healthcare payer perspective.
- The primary endpoint was ASAS20 response.
- A mixed treatment comparison was undertaken to compare CZP with adalimumab, infliximab, etanercept and golimumab for the treatment of AS.
- Similar comparisons were made for the treatment of nr-axSpA, where CZP was compared with adalimumab.
- Costs and effects were evaluated over a lifetime and discounted at 3%.
- Results were presented as incremental cost/life years gained.
- One-way and probabilistic sensitivity analyses were also conducted.

Table 1. ICERs for AS treatment comparing CZP to other anti-TNFs (12 weeks)

	ADA	IFX	ETA	GOL
Incremental cost (Turkish Lira)	-22,436.56	-48,336.84	-18,459.82	-22,020.83
Life years gained	0.000	0.000	0.000	0.000
ICER	CZP is equally effective and less costly			

ADA: Adalimumab; ICER: Incremental cost-effectiveness ratio; IFX: Infliximab; ETA: Etanercept; GOL: Golimumab.

Table 2. ICERs for AS treatment comparing CZP to other anti-TNFs (24 weeks)

	ADA	IFX	ETA	GOL
Incremental cost (Turkish Lira)	-4.955,72	-41.599,72	-5.150,75	-5.022,52
Life years gained	0.000	0.000	0.000	0.000
ICER	CZP is equally effective and less costly			

ADA: Adalimumab; ICER: Incremental cost-effectiveness ratio; IFX: Infliximab; ETA: Etanercept; GOL: Golimumab.

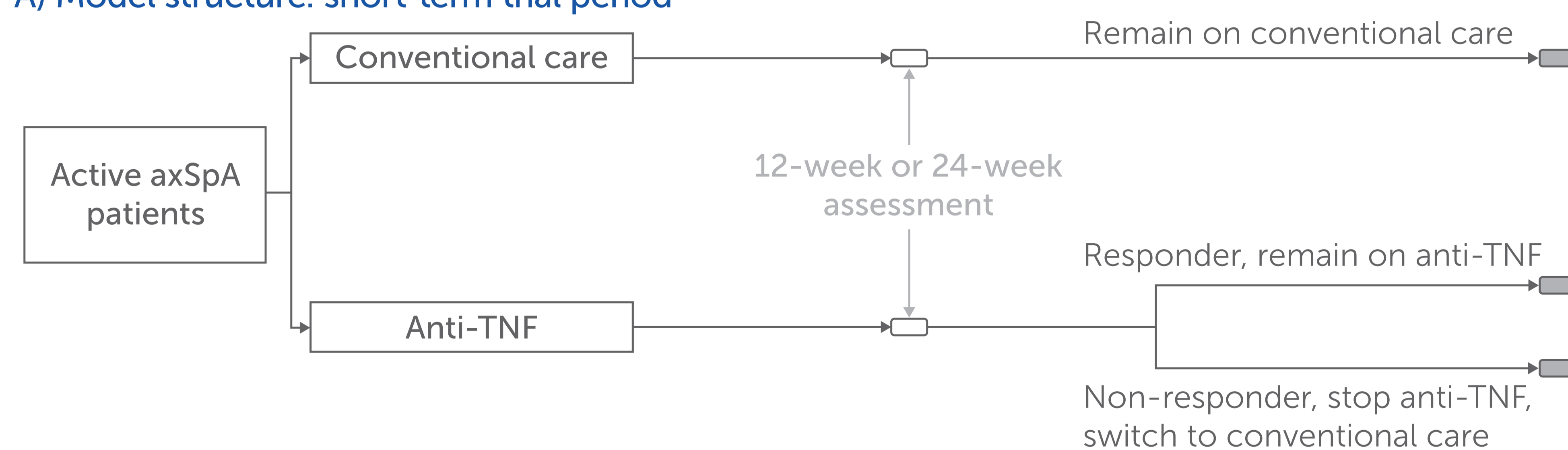
Table 3. ICERs for nr-axSpA treatment comparing CZP to adalimumab (12 weeks)

	ADA
Incremental cost (Turkish Lira)	-2.396,26
Life years gained	0.000
ICER	Dominated by CZP

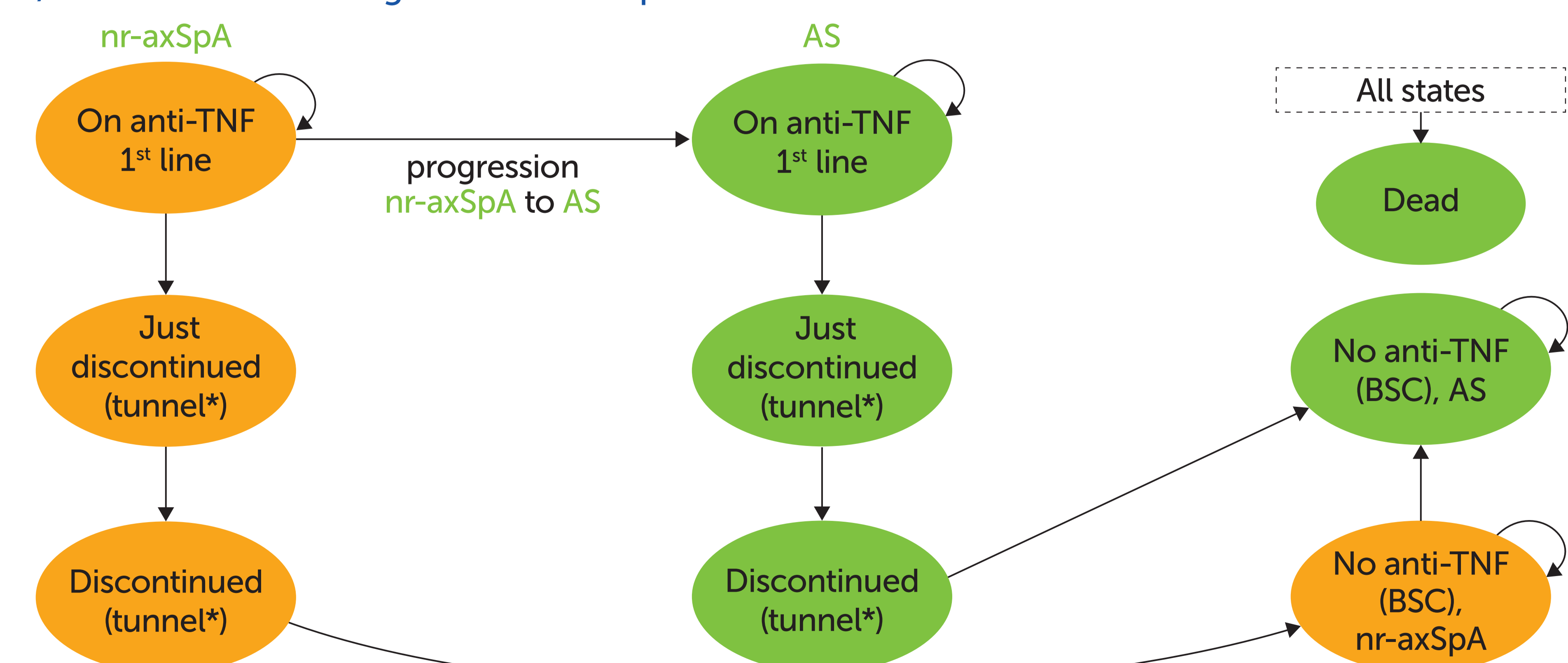
ADA: Adalimumab; ICER: Incremental cost-effectiveness ratio.

Figure 1. Model diagram

### A) Model structure: short-term trial period



### B) Model structure: long-term follow-up



\*Tunnel states used to model slow return of BASDAI & BASFI following anti-TNF withdrawal

BSC: Best supportive care.

## Model Inputs

- Resource utilization data were obtained from expert clinical opinion, including physician visits, monitoring costs, and others.
- Unit costs were taken from the Social Security Institution's 2015 official price list.

## RESULTS

- The base case analysis for AS showed that CZP was equally effective and less costly compared to adalimumab, infliximab, etanercept and golimumab.
- In nr-axSpA, CZP dominated adalimumab. Sensitivity analyses confirmed the robustness of the model.

## CONCLUSIONS

- The present analyses showed that CZP is a cost-effective alternative therapy for the treatment of axSpA patients in Turkey.

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