

Cost-Effectiveness Analysis of Upadacitinib in Patients with Active Non-Radiographic Axial Spondyloarthritis in Greece

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OBJECTIVE

To evaluate the cost-effectiveness of upadacitinib in patients with active non-radiographic axial spondyloarthritis (nr-axSpA), who have responded inadequately to conventional treatment (NSAIDs), in Greece

CONCLUSIONS

Upadacitinib, the first oral advanced therapy for the treatment of nr-axSpA, was estimated to be a cost-effective therapy in its new indication in Greece

Upadacitinib seems to have successfully expanded the therapeutic armamentarium for the management of active nr-axSpA offering decision makers, patients and clinicians a therapeutic option that is not only clinically effective but also economically efficient

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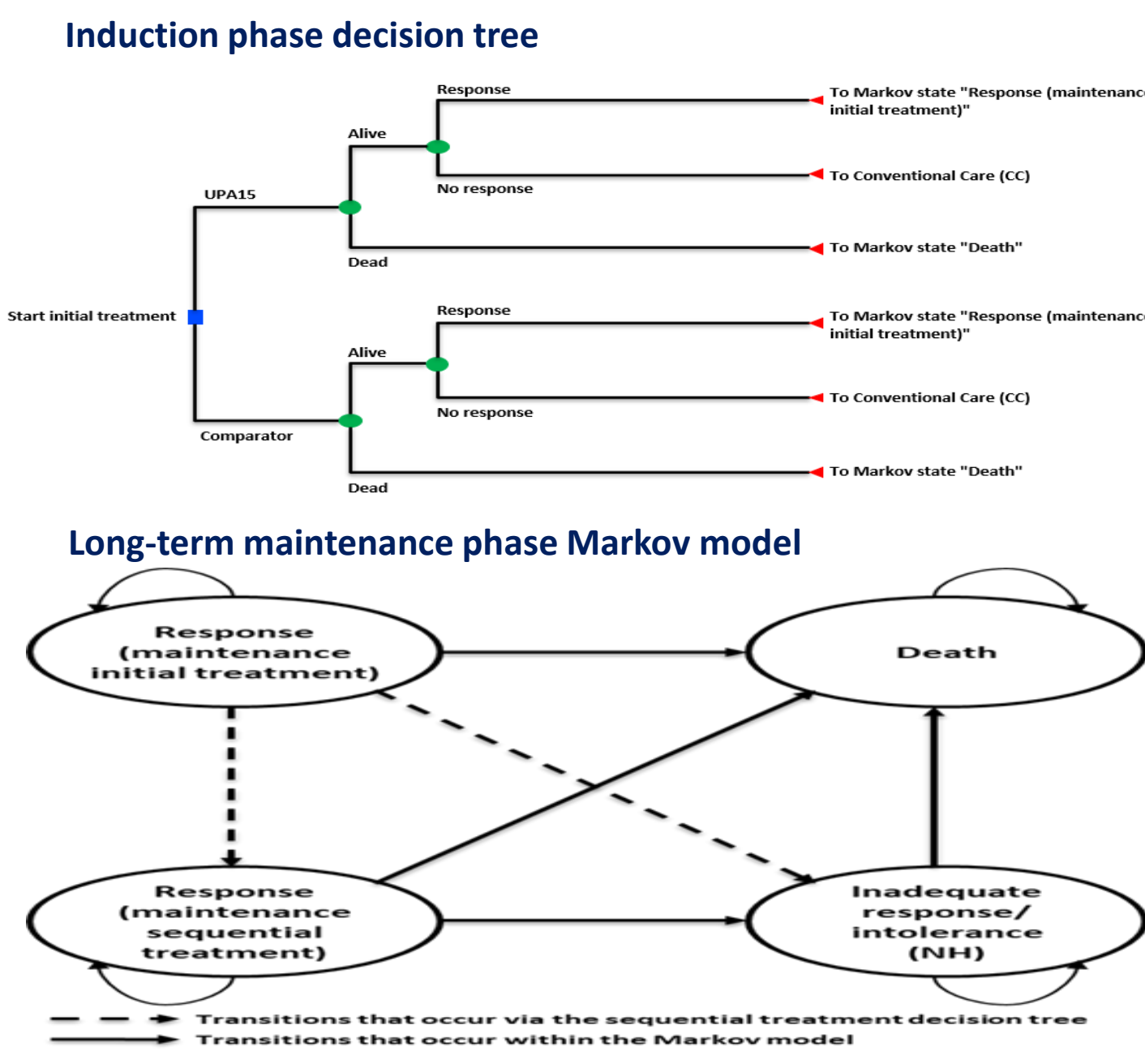
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INTRODUCTION

- Axial spondyloarthritis (axSpA) is a painful chronic inflammatory disease that primarily affects the spine and the joints linking the pelvis and lower spine (sacroiliac joints)¹. Nr-axSpA is defined clinically by the absence of definitive x-ray evidence of structural damage to the sacroiliac joints¹
- Significant clinical, humanistic and economic burden is associated with nr-axSpA²⁻⁵
- Despite the availability of several biologic therapies for the treatment of active nr-axSpA, there is an unmet clinical need in terms of achieving and maintaining treatment goals (remission/inactive disease)⁶⁻⁹
- Upadacitinib represents the first oral advanced therapy (JAK inhibitor) in the therapeutic armamentarium against this inflammatory disease, with a well-established clinical profile^{10,11}

METHODS

- A cost-effectiveness model was locally adapted from a public payer perspective¹²
- Response to treatment was obtained from a network meta-analysis¹³
- Long-term treatment withdrawal and changes in BASFI as well as utility values were retrieved from published literature¹⁴⁻¹⁸
- Drug acquisition, administration, monitoring, disease management, and adverse events costs were considered^{19,20}



RESULTS

Base case results: primary and secondary comparisons

Primary comparison	Lifetime Total costs	Lifetime Total QALYs	Upadacitinib versus Adalimumab (most utilized biological in Greece)		
			Incremental costs	Incremental QALYs	Cost per QALY gained ^a
Upadacitinib	€ 141,065	10.690	-	-	-
Adalimumab	€ 141,155	10.319	- € 89	0.371	- € 241 (Dominant)

Secondary comparisons	Lifetime Total costs	Lifetime Total QALYs	Upadacitinib versus other key comparators		
			Incremental costs	Incremental QALYs	Cost per QALY gained ^a
Upadacitinib	€ 141,065	10.690	-	-	-
Etanercept	€ 133,681	10.087	€ 7,384	0.603	€ 12,253
Secukinumab	€ 126,187	9.916	€ 14,879	0.774	€ 19,234
Ixekizumab	€ 162,457	10.449	- € 21,391	0.241	Dominant

Notes: [a] All ICERs fall well within the cost-effectiveness threshold of €42,000 per QALY gained, even below €21,000 per QALY gained [1 x GDP/capita]²¹

Abbreviations: ICER, Incremental cost- effectiveness ratio; QALY, Quality Adjusted Life Year.

- Upadacitinib was found to be a dominant treatment versus adalimumab, the most utilized biological therapy for the treatment of nr-axSpA in Greece (usual care)
- Extra key comparator analyses (versus etanercept, secukinumab and ixekizumab) also corroborated the cost-effective profile of upadacitinib
- Varying individually several model parameters and assumptions to evaluate the key drivers and robustness of the base case findings, the results were found fairly insensitive (tornado diagram). Under all sensitivity and scenario analyses, upadacitinib preserved its cost-effective profile generating ICERs below the defined willingness-to-pay threshold of €42,000 (tornado diagram)
- In the probabilistic sensitivity analysis, upadacitinib therapy was associated with 76% probability of being cost-effective compared to adalimumab at the defined threshold of €42,000 (cost-effectiveness acceptability curve)

Deterministic and probabilistic sensitivity analysis (Upadacitinib versus most utilized biological [Adalimumab] in Greece)

