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Poster# **EE219**

Cost-Effectiveness Analysis of Secukinumab for Moderate to Severe Hidradenitis Suppurativa in Portugal

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KEY FINDINGS & CONCLUSIONS

- Secukinumab is a cost-effective treatment for moderate to severe HS in Portugal.
- Both dosing regimens offer meaningful health gains at acceptable incremental costs.
- The model's robustness across sensitivity and scenario analyses supports the reliability of these findings. These results provide strong evidence to inform reimbursement decisions and address an unmet medical need in HS management within the Portuguese healthcare system

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INTRODUCTION

- Hidradenitis Suppurativa (HS) is a chronic, inflammatory skin condition that severely impacts patients' quality of life[1].
- Secukinumab, a monoclonal antibody targeting interleukin-17A, has shown promise in managing moderate to severe HS[2], particularly in patients with inadequate response or contraindications to adalimumab.
- In Portugal public healthcare decisions are guided by cost-effectiveness and therapeutic value. This study evaluates the economic value of secukinumab from the perspective of the National Health Service (NHS), aiming to support reimbursement decisions.

METHODS

- A lifetime cost-effectiveness model was developed to compare secukinumab with standard of care (SoC), which included general care, antibiotics (e.g., doxycycline, rifampicin+ clindamycin), retinoids, and surgical interventions.
- The model incorporated three health states: responder (HiSCR ≥50), non-responder (HiSCR <50), and death, using 4-week cycles. Two dosing regimens were evaluated: SEC Q4W (every 4 weeks) and SEC Q4W→Q2W (escalation to every 2 weeks for non-responders). Effectiveness was measured in quality-adjusted life years (QALYs), and costs included pharmacological treatment, disease management, and adverse events.
- The model considered parameters for the distribution of patients into the two health states (Figure 1): "responder" and "non-responder," while they are receiving the initial treatment. It is assumed that patients who discontinue the initial treatment (for any cause other than death) remain in the "non-responder" state until death. Only all-cause mortality is considered in the model, with patients at risk of death at any point in time. The risk of death was considered independent of health state and treatment, since HS is not associated with an increased risk of death. The adverse events associated with treatment and surgery were modeled as events rather than health states.

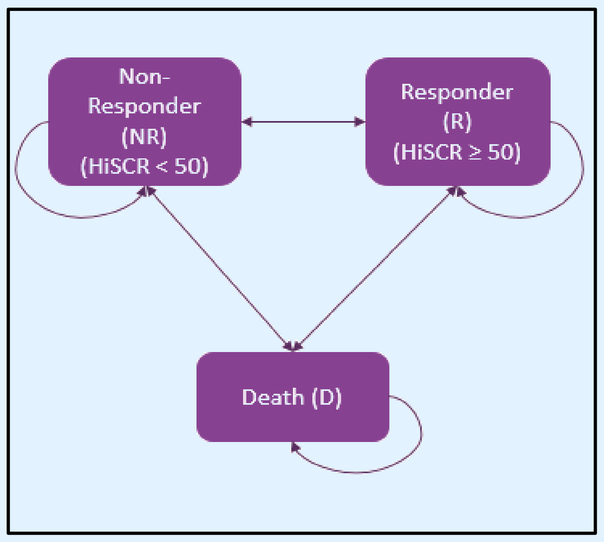

Figure 1 – Model Structure.

- Secukinumab efficacy estimates were estimated based on pooled data from the SUNRISE and SUNSHINE trials for the subgroup of patients with prior biologic treatment experience.
- The discontinuation rate, the estimates of adverse events rate and health-state utility values were estimated using aggregated data from the SUNSHINE and SUNRISE clinical trials.
- The model considered the consumption of healthcare resources related to disease management, including surgical and non-surgical procedures. It was assumed that healthcare resource consumption depends on health status and is independent of treatment received. Resource utilization was taken from the publication by Willems et al[3]. To fill the gap in empirical evidence concerning population parameters and parameters related to the consumption of health resources, an expert panel was held. Unit costs were obtained from official sources.
- The model was developed by Novartis and adapted to the Portuguese setting, considering payer's perspective. The analyses followed Portuguese guidelines (OMEAETS), applying a 4% discount rate and including sensitivity analyses[4].

RESULTS

DETERMINISTIC RESULTS

	SEC Q4W	SEC Q4W→Q2W
Δ vs. SoC	13 131 €	33 618 €

Quality-Adjusted Life Years (QALYs)		
Responder state	1,81	2,81
Non-responder state	-0,42	-1,03
QALY loss from adverse events	0,00	0,00
Total QALYs	1,39	1,79

Incremental Cost-Effectiveness Ratio	**9 463 €/QALY**	**18 826 €/QALY**

Table 1. Results for the deterministic analysis.

- Results from the deterministic analysis demonstrate that secukinumab in both treatment regimens is a cost-effectiveness option, compared to SoC (Table 1).

PROBABILISTIC RESULTS

	SEC Q4W	SEC Q4W→Q2W
Δ vs. SoC	30 175 €	59 451 €

Quality-Adjusted Life Years (QALYs)		
Responder state	1,82	2,82
Non-responder state	-0,42	-1,04
QALY loss from adverse events	0,00	0,00
Total QALYs	**1,40**	**1,78**

Incremental Cost-Effectiveness Ratio	**9 594 €/QALY**	**19 119 €/QALY**

Table 2. Results for probabilistic analysis.

- Results from the probabilistic analysis demonstrate that secukinumab in both treatment regimens is a cost-effectiveness option, compared to SoC (Table 2).

SENSITIVITY ANALYSIS

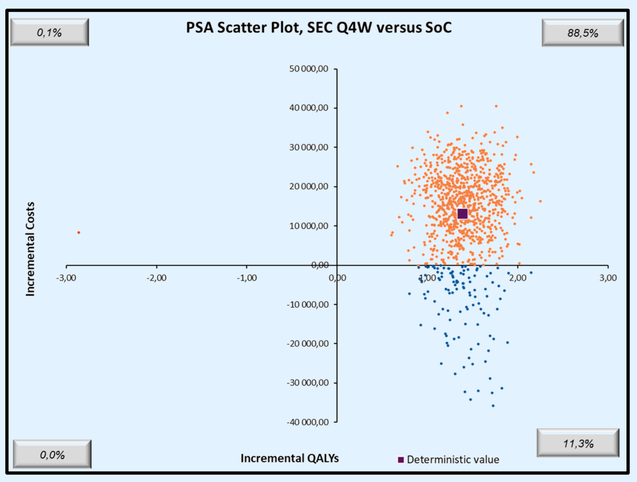

Figure 2 – Cost Effectiveness Plans.

- Results from probabilistic sensitivity analysis demonstrated that in 89% and 95% of the simulations secukinumab Q4W regimen and Q4W→Q2W, respectively, are cost-effective strategies (Figure 2).

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Disclosures
NA.