

1ISG-013 - COST SAVINGS FROM USTEKINUMAB BIOSIMILAR ADOPTION: A 5-YEAR HOSPITAL BUDGET IMPACT STUDY

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BACKGROUND AND IMPORTANCE

The introduction of the ustekinumab biosimilar (UB) offers a new opportunity for cost savings for healthcare institutions due to the high use and cost of the originator (UO). Assessing the economic impact of UB introduction is essential to support sustainable therapeutic and budgetary decisions in hospitals.

AIM AND OBJECTIVES

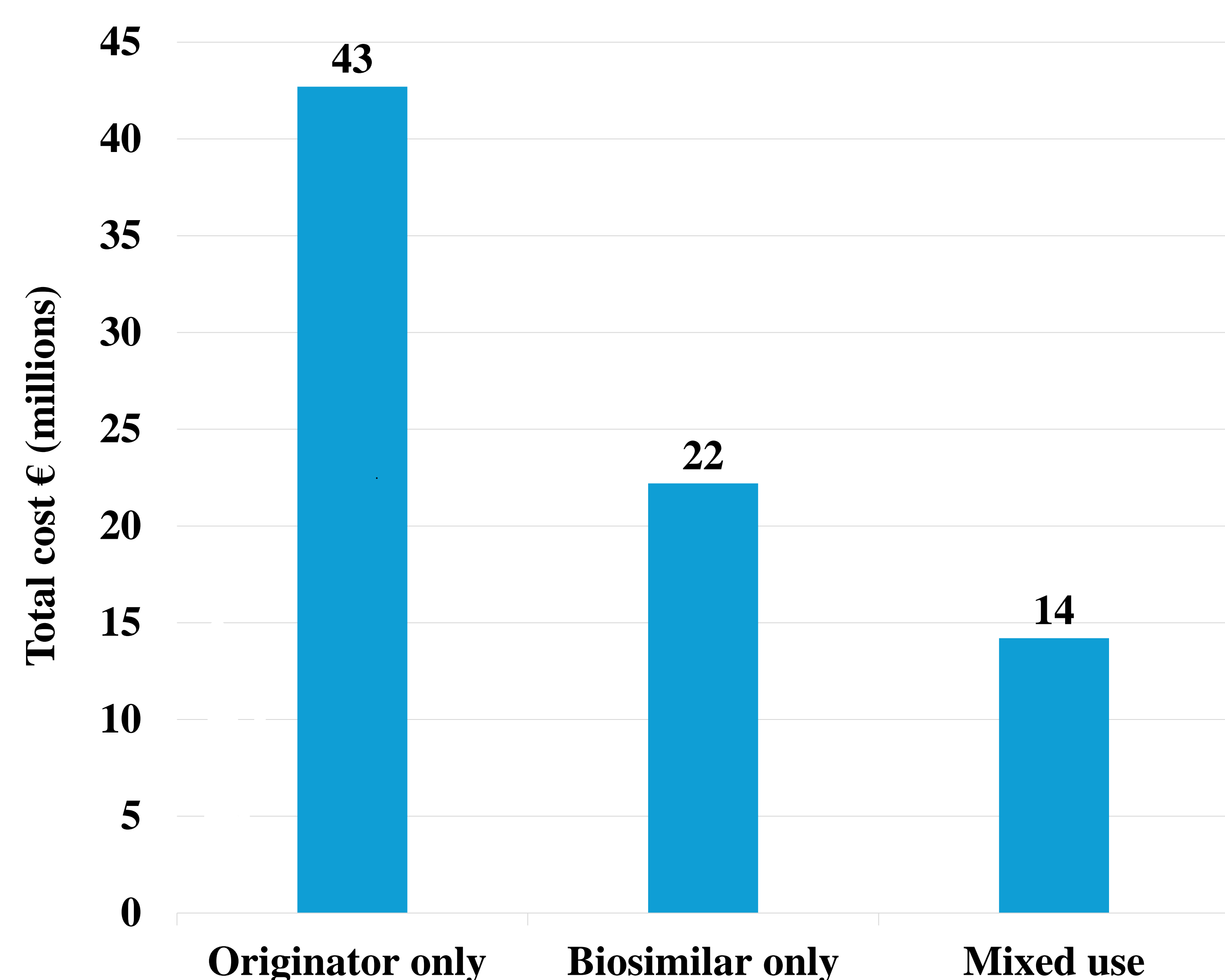
This study aimed to perform a Budget Impact Analysis (BIA) to estimate potential savings resulting from the introduction of UB in a hospital setting, considering its approved indications: plaque psoriasis, active psoriatic arthritis, and Crohn's disease.

MATERIALS AND METHODS

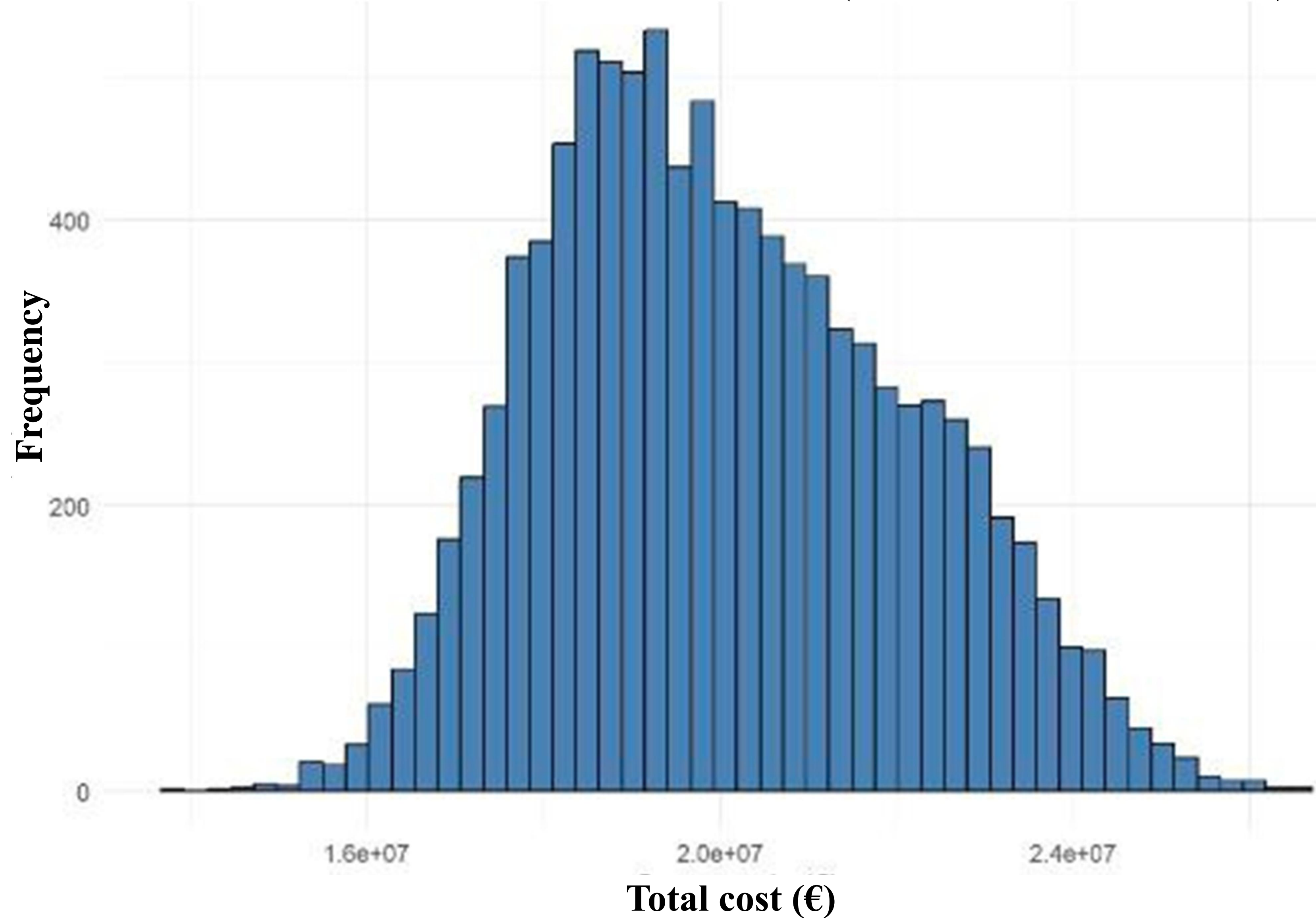
A 5-year BIA was conducted under three scenarios: exclusive use of UO, mixed use of UO and UB, and exclusive use of UB. The analysis used 2024 dispensing data (2,100/year) distributed by indication. Direct costs, including VAT, consisting of drug acquisition (tender prices/vial: UO 130 mg €2,225; UO 90 mg €1,800; UB 130 mg and 90 mg €291) and intravenous administration (set €2.5/unit, nurse €30/h, 3 dispensations/nurse). A 5% annual increase in dispensations and a 5% discount from year three were assumed, based on internal data. A stochastic sensitivity analysis with Monte Carlo simulation (n=10,000) was performed on the mixed scenario, varying the switch to UB (60–100%) and return to UO (0–20%). Analyses were conducted using R Studio, version 4.3.3.

RESULTS

Over five years, total costs were €42,730,171 for UO-only, €22,204,137 for mixed use, and €14,221,790 for UB-only, corresponding to savings of €20,526,034 and €28,508,381 versus exclusive UO use. Sensitivity analysis estimated a mean cost of €20,052,949 (range €13,935,293–€26,702,920; SD €2,042,978).



DISTRIBUTION OF TOTAL COST (10.000 SIMULATIONS)



CONCLUSION AND RELEVANCE

Introducing UB could significantly improve the economic sustainability of hospital pharmaceutical expenditure without compromising therapeutic efficacy. The BIA showed substantial savings even in the mixed-use scenario, further increased under exclusive biosimilar adoption. Stochastic sensitivity confirmed robust results, with minimum savings of €16,027,250 in the highest-cost simulation. This study underscores the key role of hospital pharmacists in promoting clinically and economically sustainable decisions within the National Health Service.

