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A COST-CALCULATOR MODEL TO ESTIMATE THE ECONOMIC IMPACT OF OBINUTUZUMAB FOR THE TREATMENT OF LUPUS NEPHRITIS IN ITALY

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OBJECTIVE

- Lupus nephritis (LN) is a severe manifestation of systemic lupus erythematosus (SLE), associated with substantial clinical and economic burden. [1] Despite advances in immunosuppressive therapy, there remains a need for treatments offering **durable remission with reduced treatment burden.**
- Obinutuzumab (OBI) is administered intravenously and combines **demonstrated significant clinical benefit in LN with a convenient dosing regimen**. [2]
- This study aimed to assess the **potential of OBI to reduce treatment burden** by comparing per-patient costs of OBI versus reimbursed advanced therapies in adult patients with LN in Italy.

METHODS

- A **cost-calculator model** was developed to compare the **3-year per-patient costs** of OBI with voclosporin (VOC), intravenous belimumab (BEL IV), and subcutaneous belimumab (BEL SC).
- The cost of standard mycophenolate mofetil therapy was not considered, as it is common to all treatment arms and therefore non-differential.
- Analyses were conducted from the **Italian National Health Service (NHS) perspective**, including drug acquisition, administration, and adverse event costs, and from the **societal perspective**, additionally including **productivity losses and transportation costs**.
- **Dosing and administration schedules** were based on product information for each treatment.
- **Unit costs** were derived from Italian sources (Table 1)**.**
- Treatment was assumed to be **continued throughout the 3-year time horizon.**

Table 1 – Unit costs

Cost component	How costs were estimated
Drug acquisition	Based on treatment dose and dosing schedule, with drug acquisition costs valued using maximum hospital tender prices.
Administration	Based on administration route, number of administrations and applicable healthcare tariffs. [3]
Adverse events	Based on the annual incidence of grade 3/4 AEs derived from pivotal clinical trials [2-4], with management costs valued using national DRG tariffs. [5]
Productivity losses	Based on time lost by patients and caregivers for drug administration or collection from the hospital pharmacy, using the human capital approach for paid work and the proxy good approach for unpaid activities, including household work, caregiving, and volunteering. Losses were valued using the average gross annual salary and market wages for equivalent services. [6-9]
Transportation	Based on healthcare-center visits, average round-trip distance and weighted cost per kilometer across transport modes. [10-13]

NHS perspective: drug acquisition, administration and productivity-related healthcare costs; **Societal perspective:** NHS costs plus productivity losses and transportation costs.

RESULTS

NHS PERSPECTIVE

- OBI had the lowest 3-year cumulative cost per patient (€13,800). Comparator costs ranged from €18,751 for BEL IV to €24,079 for VOC, with BEL SC at €19,343.

Savings with OBI:
- **vs BEL IV: € 4,951**
- **vs BEL SC: € 5,543**
- **vs VOC: € 10,279**

SOCIETAL PERSPECTIVE

- OBI remained the least costly (€15,042), compared with BEL SC (€22,470), BEL IV (€22,839), and VOC (€25,685).

Savings with OBI:
- **vs BEL IV: € 7,797**
- **vs BEL SC: € 7,428**
- **vs VOC: € 10,643**

Figure 1 – 3-year cumulative savings per patient by perspective

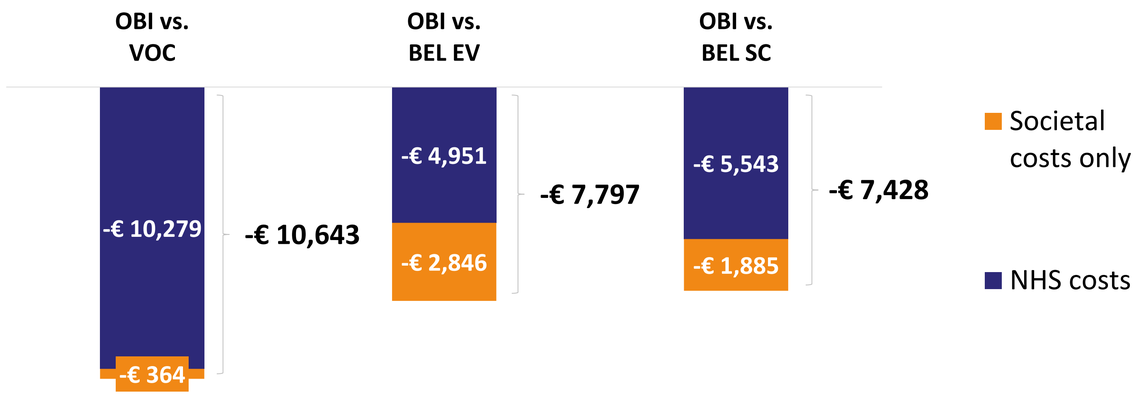
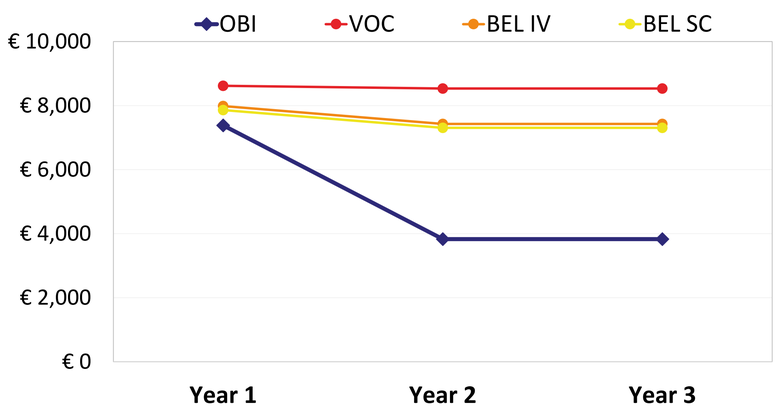


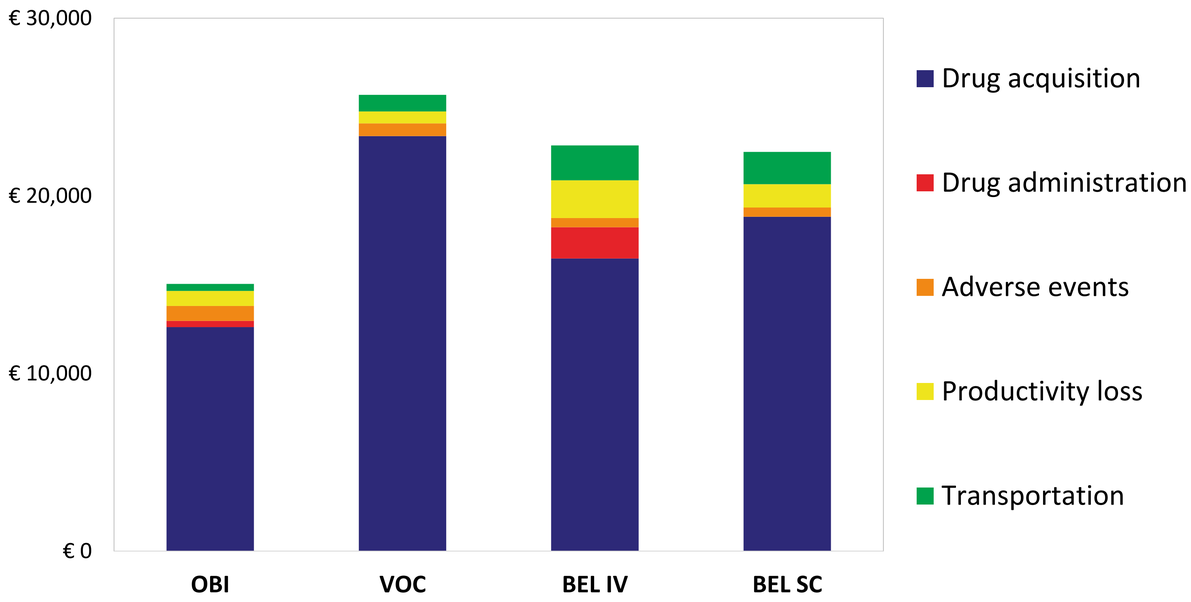
Figure 2 – Total cost per patient by year – societal perspective



OBI costs are concentrated in Year 1 and decline substantially thereafter, reflecting its less frequent dosing schedule.

Cost differences were primarily driven by lower treatment costs with OBI, supported by lower administration-related costs.
From the societal perspective, productivity losses and transportation costs further contributed to differences in total costs.

Figure 3 – 3-year cumulative cost breakdown



DRIVERS OF COST DIFFERENCES

Lower treatment costs with OBI

Lower administration related costs with OBI (less frequent infusions)

Lower productivity losses associated with fewer treatment-related visits

Lower transportation costs associated with less frequent hospital visits

CONCLUSIONS

Over 3 years, **OBI was the least costly advanced therapy for adult LN patients** in Italy from both the NHS and societal perspective. These findings can support budget planning and resource allocation.

References

1. Registro Nazionale Malattie Rare (RNMR) – Malattie autoimmuni sistemiche e nefropatie immunomediate; 2. Furie RA et al. N Engl J Med. 2025;392(15):1471-1483; 3**.** Regione Lombardia 2024. *DELIBERAZIONE N° XII / 3630*; 4. NICE 2023. TA882; 5. Ministero della Salute. Decreto 10/2012 pubblicato in GU Serie Generale n.23 del 28-1-2013; 6. ISTAT 2013. *L'uso del tempo*; 7. ISTAT 2022. *LA STRUTTURA DELLE RETRIBUZIONI IN ITALIA*; 8. Pierotti F et al. PLoS One. 2015;10(10):e0140843. Published 2015 Oct 21.; 9. Al Sawah S et al. Lupus. 2017;26(1):54-61; 10. *Automobile Club d'Italia*. https://login.aci.it/index.php?do=genNotAuth&id=login&application_key=costikm; 11. Comune di Milano 2024. *Tariffe taxi Milano*; 12. Avenali et al. *Economia e Politica Industriale. 2014;*41(4), 181–213; 13. Filippi M et al. J Neurol. 2024;271(1):340-354.

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