

ECONOMIC IMPACT OF IMMUNOBIOLOGICAL THERAPIES IN DISEASE AFFECTING SKIN FROM THE PERSPECTIVE OF POPULATION HEALTH MANAGEMENT IN LMIC/LATAM/BRAZIL

GAMA, RAFAEL B¹; UNIMED BLUMENAU, Blumenau SC Brazil
TANAKA, ELIO². TNK GESTÃO, Curitiba, Brazil

BACKGROUND

Systemic diseases involving the skin that originate through immune-mediated pathophysiological mechanisms represent a growing economic challenge in Brazil and worldwide. The increasingly expanded access to immunobiological therapies, even with better clinical results, has significantly increased healthcare costs, requiring a detailed analysis of the financial and epidemiological impact of these therapies.

OBJECTIVES:

To assess the economic impact and epidemiological aspects of immunobiological therapies for diseases that affect the skin in the setting of a large private health insurance company in southern Brazil with 131,000 lives. The study analyzes the financial burden associated with these therapies and its evolution over time, with an emphasis on the epidemiological perspective of population health management.

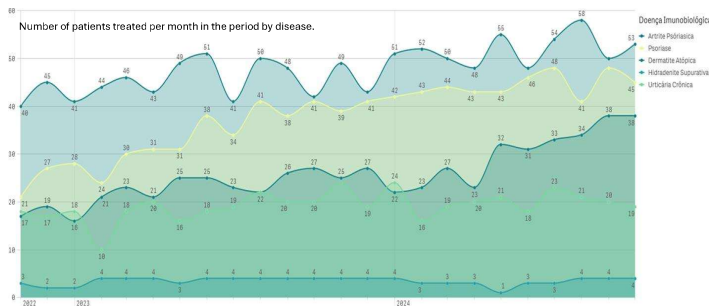
METHODS:

a) MODELING: Observational, retrospective study, real-world database, single center, payer perspective, private health, Population Health. DATA ANALYSIS PERIOD: Analysis interval of 24 months (November 2022 to October 2024). Data generation tools consolidated by Business Intelligence Panel and MS Excel, both commonly used as a management tool by the insurer.

b) DISEASES AND MEDICATIONS ANALYZED: Psoriasis (PSo), Psoriatic Arthritis (PsA), Atopic Dermatitis (AD), Hidradenitis Suppurativa (HS), and Chronic Urticaria (CU). The medications analyzed were Anti-TNFA, Anti-interleukins, and JanusKinase Inhibitors, available for coverage according to the insurer's standard list.

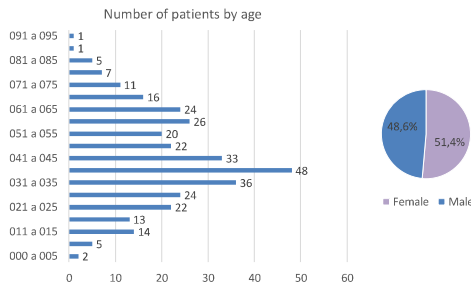
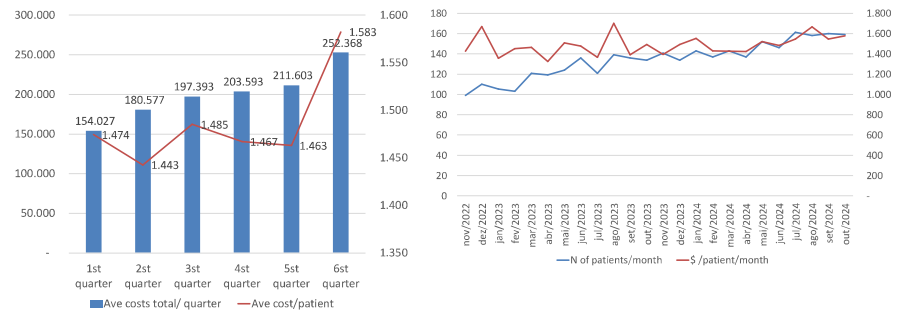
Costs include materials, medications, fees, and professional fees used in drug therapy sessions. The reimbursement value reference follows the insurer's own standardized list and did not undergo any methodological changes during the study period

The number of cases treated each month considers a natural movement in the user portfolio (entries and exits), for common clinical and administrative reasons in an insurer's portfolio. The number of patients per month is an index that is calculated by adding up the patients who received treatment in the same month. The data was taken from the insurer's management system. Values converted from Brazilian Real (R\$) to US Dollar (US\$) at the time of the study: R\$6:US\$1.



RESULTS:

We identified a significant increase in the number of patients treated per month during the analysis period of 60% (all diseases: in 24 months - from 99 patients/month in November 2022 to 159 patients/month in October 2024). We performed a consolidated analysis of the average per four-month period and adjusted it to the order of magnitude of 100,000 lives. In this scenario, the increase in patients treated was 50% (81.7 patients/month in the 1st quarter to 121.6 patients/month in the 6th quarter). Among the diseases analyzed, Psoriasis and Psoriatic Arthritis were the most prevalent. However, in the analysis of the increase in the number of cases, Atopic Dermatitis (100%) and Psoriasis (115%) were the diseases with the greatest increase in patients included for treatment. In financial terms, the absolute cost increase was 76% (US\$141,000/month in November 2022 to US\$250,000/month in October 2024) and the average monthly expenditure per patient increased by 7.6% (US\$1,470 in the 1st quarter to US\$1,562 in the 6th quarter). Psoriasis and Psoriatic Arthritis had the highest average cost increase in the period, although Atopic Dermatitis stood out in the last four months.



Immunobiological Disease	N. of Patients	Cost/ Y / patient	Average age	Oldest age	Youngest age
Psoriasis	79	11.316,73	48	82	16
Psoriatic Arthritis	70	11.498,49	52	86	15
Atopic Dermatitis	49	9.862,69	23	63	3
Chronic Urticaria	48	3.618,88	44	94	17
Hidradenitis Suppurativa	5	11.534,68	38	43	23

CONCLUSIONS:

Skin diseases with immune-mediated pathophysiology have generated a significant economic impact on private health insurance companies in Brazil and worldwide. From the perspective of population health management, one should look not only at the price of treatments according to the negotiated value, but also at epidemiological aspects and their consequences. In the study, the significant increase in prevalence added much more budgetary impact than the increase in the cost of treatments (5:1 ratio). The inclusion of new, more effective therapies and more inclusive protocols for immunotherapy treatments may be the factor generating the high frequency indicator. In terms of the increase in average costs per patient, it is considered that the incorporation of Biosimilars in the therapeutic option of Anti-TNFs and in the option of Januskinase inhibitors, with an average treatment cost slightly lower than that of Anti-Interleukins, may have favored a lower rate of increase in average cost per patient. Thus, we conclude in this study that the greatest factor impacting incremental costs is the high inclusion of new patients, significantly greater than the increase in the price of medicines. It is important to understand which individual factor contributes to the increase in healthcare costs, so that managers can invest more effort in the strategy of greater impact on their population.

REFERENCES:

- 1- American Academy of Dermatology Association. Burden of Skin Disease. <https://www.aad.org/member/clinical-quality/clinical-care/bsd>. Access in mar/17/2025.
- 2- Andrew Y Finlay. The burden of skin disease: quality of life, economic aspects and social issues. Clin Med (Lond). 2009 Dec;9(6):592-594. doi: 10.7861/clinmedicine.9-6-592.
- 3- Renan Tironi Giglio de Oliveira and Col. Socioeconomic impact of high-cost drugs in Brazilian dermatology. Legal and financial aspects, and impact on clinical practice. Mar/01/2021, N2, Vol 96. p200.

Authors Contact:
Gama, Rafael Baptista: rgama_med@hotmail.com; +55 41991210808
Tanaka, Elio: eliotanaka@gmail.com; +55 41997030920