

ECONOMIC SAVINGS FROM WEIGHT-BASED DOSING OF PEMBROLIZUMAB: WHAT IS THE IMPACT IN A TERTIARY HOSPITAL?



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BACKGROUND

Pembrolizumab is a humanised monoclonal antibody targeting PD-1 approved by EMA in 2015. Currently, it has approval for several indications and is widely used

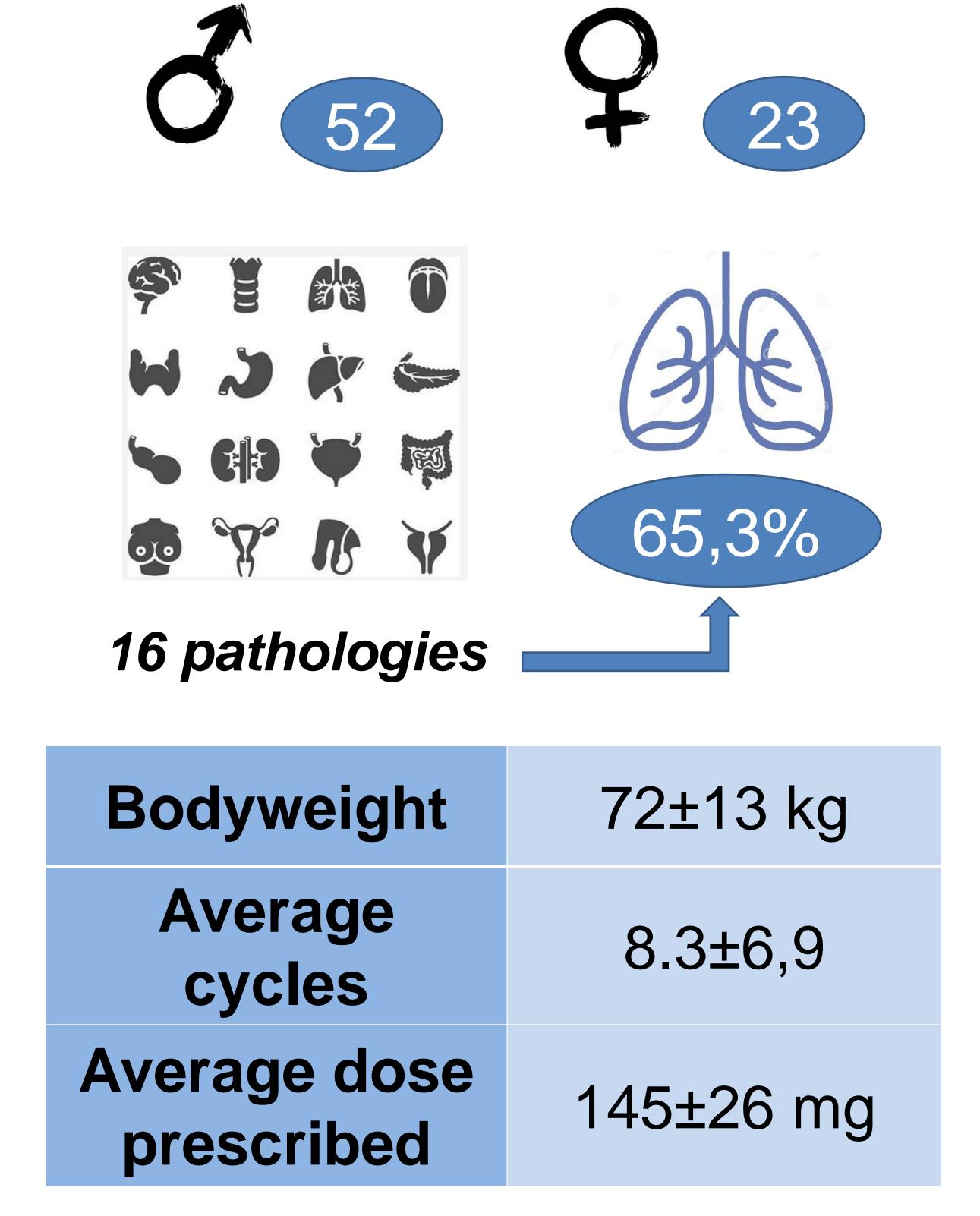
OBJECTIVES

To calculate the budget impact difference of administering pembrolizumab at a personalized weight dose of 2 mg/kg every 3 weeks (Q3W) or 4 mg/kg every 6 weeks (Q6W) instead of fixed dose of 200 mg (Q3W) or 400 mg (Q6W)

MATERIAL AND METHODS

- **✓** Retrospective observational descriptive study
- ✓ Patients treated with pembrolizumab in all indications (July 2020 June 2021)
- ✓ Collected variables: sex, weight, milligrams administered, number of cycles, vials used.
- ✓ Evaluation: Cost per milligram and per cycle and cost for two treatment strategies: cycles of 2 mg/kg (Q3W) or 4 mg/kg (Q6W) versus 200 mg (Q3W) or 400 mg (Q6W).
- ✓ All dispensations were transformed to cycles of Q3W for calculations.

RESULTS





CONCLUSION

- ✓ Pembrolizumab **fixed dose** presents practical **benefits** in terms of **prescription and preparation**, but also an **extra cost** regarding our patients' population **in all indications**
- Weight-based dosing significantly reduces the cost of pembrolizumab and it is a good option in the era of personalised medicine.

ATC Code: 4 Historical research