

ECONOMIC SAVING OF THE PREPARATION OF SUBCUTANEOUS FORMULATIONS COMPARED TO INTRAVENOUS: FOCUS ON DARATUMUMAB IN THREE HEALTHCARE

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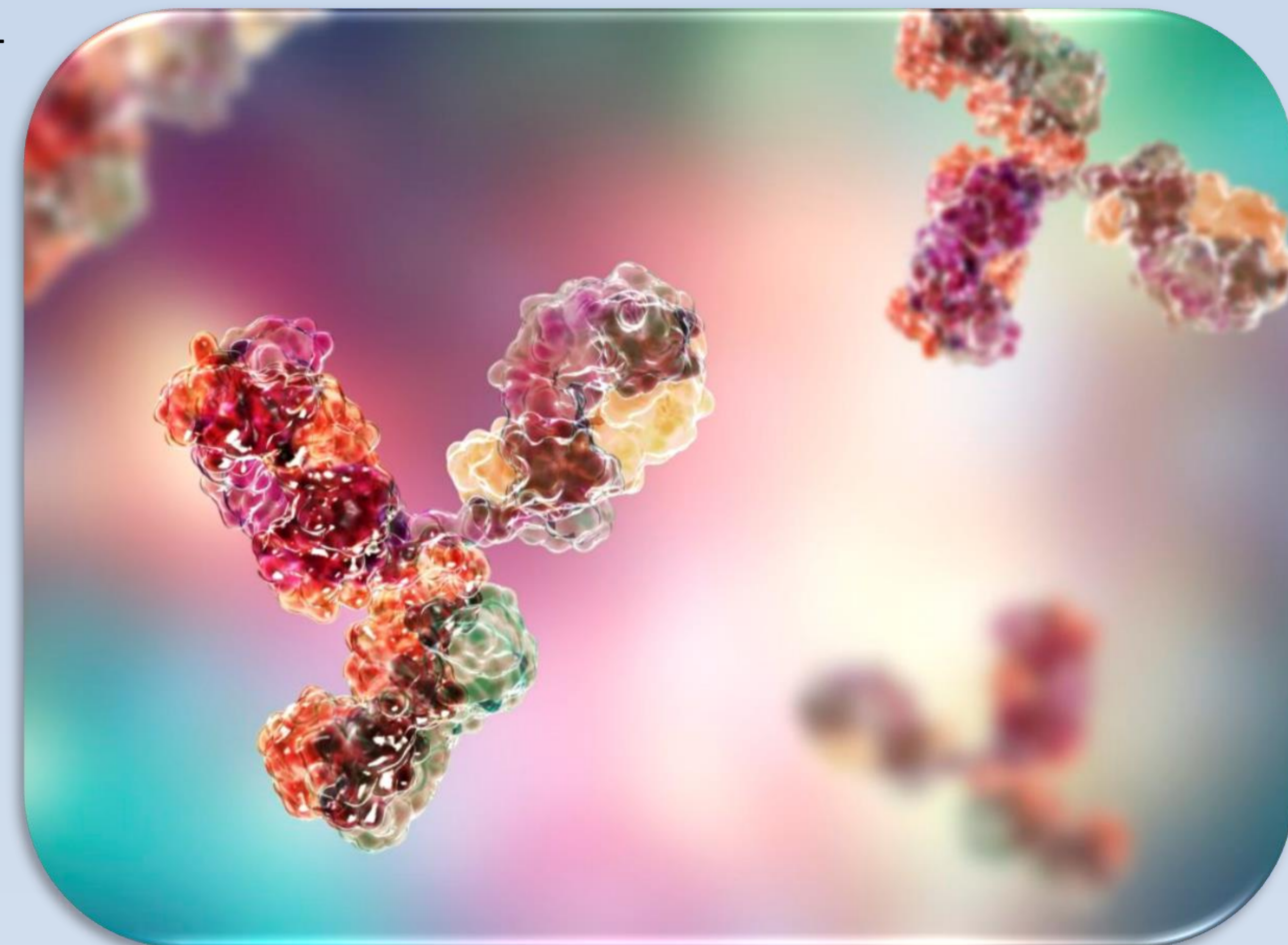
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BACKGROUND AIM AND OBJECTIVES

The new onco-haematological formulations are finding their way more towards subcutaneous administration which represents a technological innovation compared to intravenous formulations and allows for a greater number of accesses to therapies given the reduced administration times.

The objective of this work is to calculate the direct costs of medical devices and indirect costs of the nursing staff responsible for preparing intravenous therapies for the drug daratumumab.

To do this we took into consideration the data for the year 2022 from three healthcare companies in the Lazio region.



MATERIALS AND METHODS:

With the use of company software we determined the cost of the devices used in intravenous and subcutaneous preparation and the number of patients receiving daratumumab therapy in 2022, considering 24 cycles of therapy for each patient in line with the indications provided by the dosing schemes.

Since there was a change in the purchase price of the devices in the three healthcare companies, it was decided to insert, as a reference for our work, the average cost applied on a national scale.



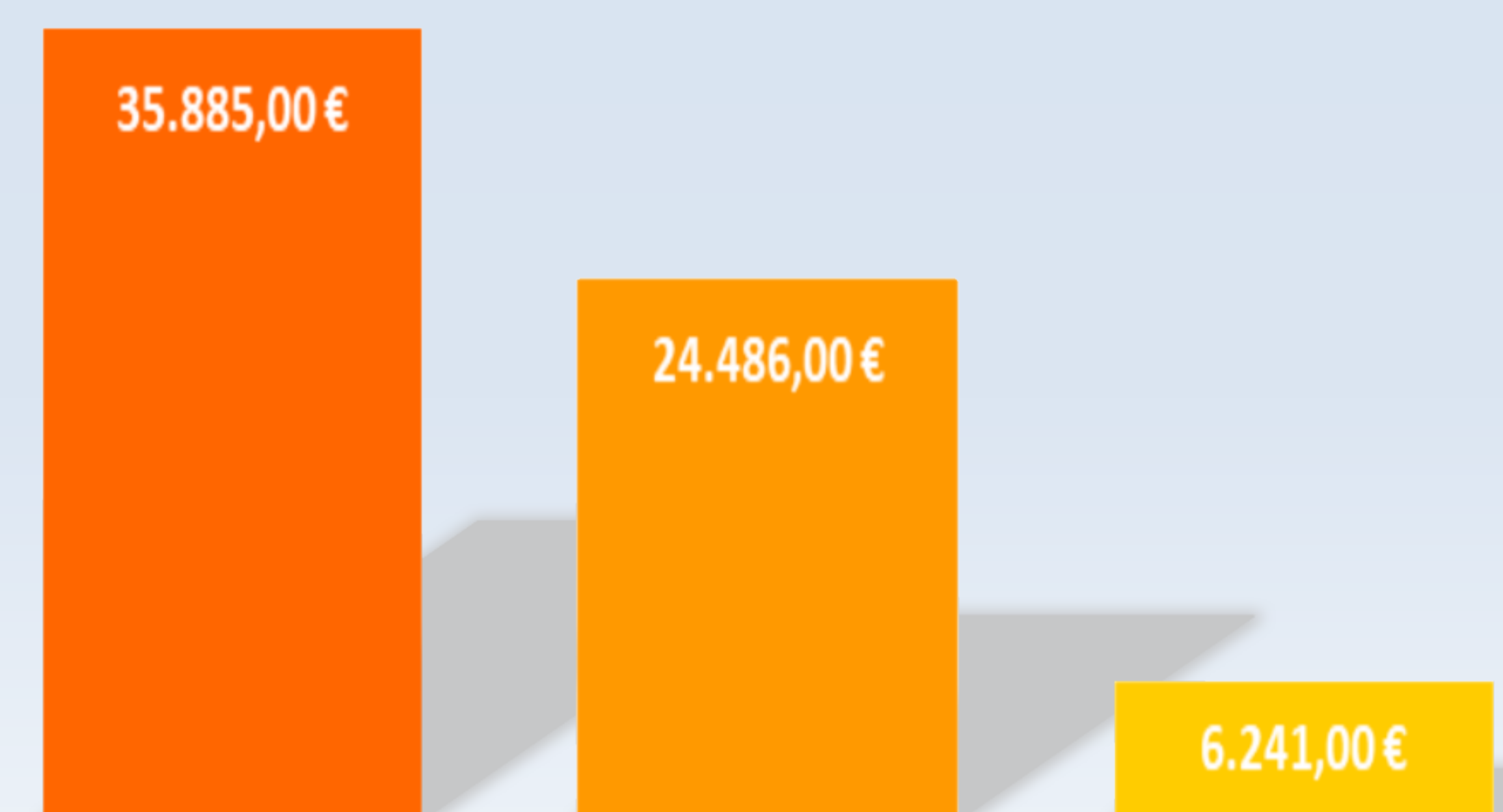
RESULTS:

The cost calculated for a single intravenous preparation is €12.01, considering the following devices necessary for administration: Two vial-spikes €2.84, two syringes with connectors €2.48, clave-valve €2.76, bag €0.60, syringe-luerlock for diluent €0.50, secondary infusion set €2.20, cap-cap €0.25, UV-protector bag €0.25. The cost for subcutaneous administration is different, equal to €3.29 for vial-spike, syringe and connector, UV-protector bag and cap-cap.

The indirect cost calculated on the average hourly nursing cost of €27.83 and considering a 10-minute set-up commitment for two nursing units is equal to €9.28.

In the year 2022 in the healthcare-company of Viterbo there were 55 patients treated with daratumumab; in the healthcare-company of Latina there were 69 patients treated with daratumumab and in the healthcare-company of Rieti there were 12 patients treated with daratumumab.

Savings derived from the costs of preparing daratumumab formulations



Healthcare company of Latina Healthcare company of Viterbo Healthcare company of Rieti

CONCLUSIONS:

The total cost of the devices and the healthcare staff responsible for preparing the infusion is equal to €21.66 compared to €3.29 for the cost of preparing the subcutaneous injection. The subcutaneous administration is more convenient than intravenous, with a saving of €18.55 per administration. Since the prices of the two formulations of daratumumab are equal, this corresponds to an actual saving.

This saving for the entire year 2022 and for the 24 planned administration cycles would produce a reduction in spending, accounted for in the set-up costs, equal to €24,486 for healthcare-company of Viterbo, €35,885 for healthcare-company of Latina and €6,241 for healthcare-company of Rieti. To this we must add an increase in the safety of the operators who prepare and administer, greater patient compliance and a decrease in the social costs of the patient undergoing therapy.

