



"SWITCHING FROM INTRAVENOUS TO SUBCUTANEOUS FORMULATION OF TRASTUZUMAB: COSTS AND SAFETY"



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BACKGROUND

Trastuzumab-containing regimens are standard of care for HER2+breast cancer. While intravenous trastuzumab (Tiv) is administered as a weight-based dose using an initial 90 min infusion followed by subsequent 30-min, subcutaneous trastuzumab (Tsc) is administered as a fixed 600 mg dose over 5 min without compromising its efficacy and safety. Potential savings associated with Tsc include loading dose avoidance and time reductions related to preparation and administration tasks.

PURPOSE

To evaluate the impact on drug costs, patient chair time and the security profile of switching from the intravenous to the subcutaneous formulation of trastuzumab

MATERIAL AND METHODS

Retrospective study of all patients with HER2 + breast cancer who received trastuzumab (March 2015 to March 2016) in our hospital.

Data collected were: age, body weight, route of administration, number of cycles and dose per cycle.

Costs were calculated considering the use of vials and the trastuzumab posology (Tsc fixed dose 600 mg; Tiv 1 loading dose (8mg/kg) plus maintenance cycles (6 mg/kg). For patients' time in the infusion chair was considered 5 minutes for Tsc and 90 minute for loading dose Tiv and 30 min maintenance Tiv.

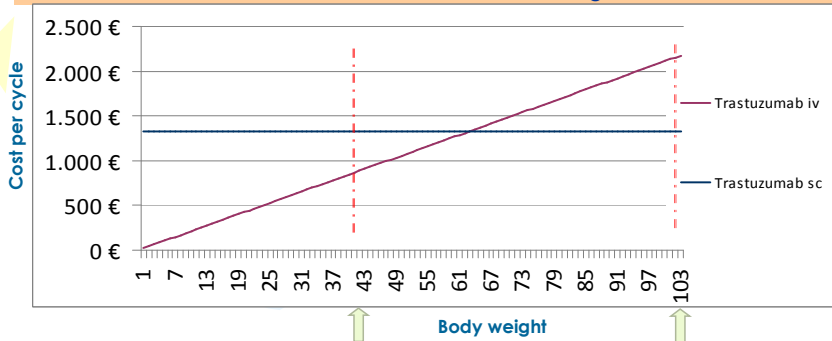
RESULTS

Treatment	Patients
Switch from iv to sc	44
Start with sc	30
Total	74

	Median
Age	60 (35-87) years
Body weight	63 (42-103) kg
Cycles	10 (1-18)
Dose per cycle	378 (252-618) mg

Safety
*Trastuzumab SC was well tolerated.
*Only in one patient switching to the Tiv formulation was necessitated by pain at the site of administration after two treatment cycles.

Drug costs –Switch from iv to sc (n=44)



Drug costs	Intravenous	Subcutaneous	Savings
	602,119 €	602,004 €	115 €

Drug costs –Start with sc (n=30)

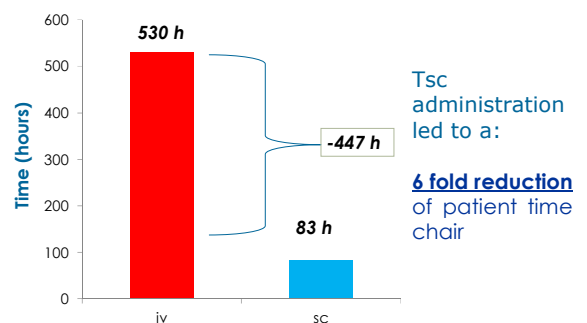
First cycle	Intravenous*	Subcutaneous	Savings
	56,813 €	39,780 €	17,033€
Total costs	Intravenous*	Subcutaneous	Savings
	401,719€	361,998 €	39,721 €

* Loading dose 8 mg/kg plus maintenance 6mg/kg

Drug costs considering all patients (n=74)

Total costs	Intravenous	Subcutaneous	Savings
	1003,838 €	964,002 €	39,836€

Patient time chair (n=74)



CONCLUSIONS

Switching Tiv to Tsc was associated to costs savings and reduced chair time maintaining safety of the treatment.