

Economic impact of Q6W dosing regimen of Pembrolizumab in Advanced or Adjuvant Melanoma.

Daniele Rossi^{1*}, Andrea Marcellusi^{1,2}, Francesco Saverio Mennini^{1,2}

¹ Economic Evaluation and HTA (CEIS- EEHTA) - IGF Department, Faculty of Economics, University of Rome "Tor Vergata", Italy.² Institute for Leadership and Management in Health - Kingston University London, London, UK



PRESENTED AT:



OBJECTIVES

This study aimed to evaluate the economic impact of new dosing regimen of pembrolizumab (Q6W) for the treatment of advanced or adjuvant melanoma in Italy, considering nurse and physician time, preparation costs and administration time.

METHODOLOGY

The analysis was developed considering two subsequent methodological steps:

- a) unit costs estimation for innovative oncologic drugs administration (nurse time, physician time and preparation costs); the cost of the drug was not considered;
- b) time consumption calculation for each administration of pembrolizumab, nivolumab or ipilimumab in Italy. (Tab 1)

The data were collected through a survey that was sent to ten Italian hospitals treating metastatic or adjuvant melanoma. The source of the dosing regimens were the product SPCs published on the European Medicines Agency website.

Finally, the economic impact was estimated considering a standardized 1.000 patients treated with Q6W pembrolizumab vs Q3W pembrolizumab, Q2W nivolumab, Q4W nivolumab and Q3W ipilimumab for a time horizon of 6 weeks. (Tab 2)

Tab 1 – «time consumption for each administration »

Treatment of Advanced or Adjuvant melanoma in adult patients	Waiting room (min)	Drug preparation (min)	Workstation preparation (min)	Medical time (min)	Nurse time (min)	Total cost 1 administration
Q3W IPILIMUMAB	35	17	8	10	53	€30,55
COST	0	€5,15	€2,57	€6,36	€16,47	
Q2W NIVOLUMAB	35	17	8	10	33	€24,38
COST	0	€5,15	€2,57	€6,36	€10,29	
Q4W NIVOLUMAB	35	17	8	10	43	€27,46
COST	0	€5,15	€2,57	€6,36	€13,38	
Q3W PEMBROLIZUMAB	35	17	8	10	33	€24,38
COST	0	€5,15	€2,57	€6,36	€10,29	
Q6W PEMBROLIZUMAB	35	17	8	10	33	€24,38
COST	0	€5,15	€2,57	€6,36	€10,29	

Tab 2 – «Dosing regimen»

	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5
Q3W <u>Ipilimumab</u>	X			X		
Q2W <u>Nivolumab</u>	X		X		X	
Q4W <u>Nivolumab</u>	X				X	
Q3W <u>Pembrolizumab</u>	X			X		
Q6W <u>Pembrolizumab</u>	X					

RESULTS

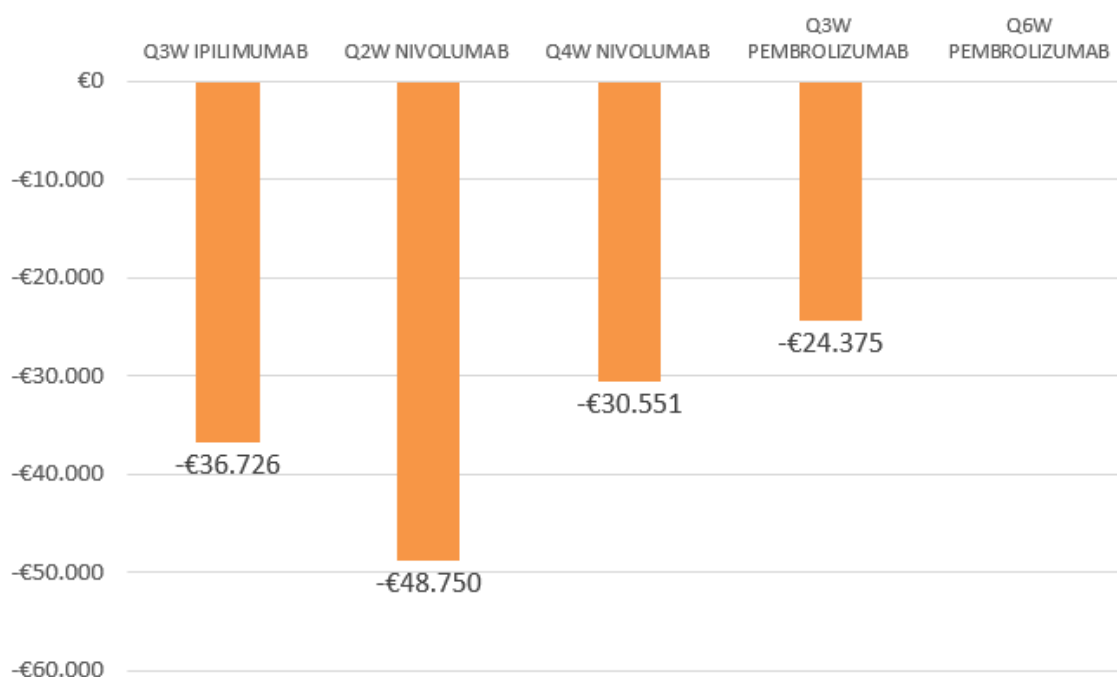
Three of the 10 hospitals answered to the questionnaire: 1) Istituto Nazionale Tumori IRCCS Fondazione "G. Pascale," Naples, Italy, 2) Istituto Dermopatico dell'Immacolata IDI-IRCCS, Rome, Italy, 3) IRCCS Ospedale Policlinico San Martino, Genoa, Italy.

The results demonstrate that every 1.000 patients the Q6W dosing regimen could generate € 36.726, € 48.750, € 30.551 and € 24.375 of savings in a time horizon of 6 weeks if compared with Q3W ipilimumab, Q2W nivolumab, Q4W nivolumab and Q3W pembrolizumab respectively. (Tab 3; Figure 1)

Tab 3 – Q6W Pembrolizumab cost reduction vs other dosing regimen

Drugs	Cost / dose	n° doses in 6 weeks	Tot cost doses in 6 weeks	Cost for 1.000 patients	Cost saving
Q3W <u>Ipilimumab</u>	€30,55	2	€61,10	€61.101	-€36.726
Q2W <u>Nivolumab</u>	€24,38	3	€73,13	€73.126	-€48.750
Q4W <u>Nivolumab</u>	€27,46	2	€54,93	€54.926	-€30.551
Q3W <u>Pembrolizumab</u>	€24,38	2	€48,75	€48.750	-€24.375
Q6W <u>Pembrolizumab</u>	€24,38	1	€24,38	€24.375	€0

Figure 1 – Q6W Pembrolizumab cost reduction vs other dosing regimen



CONCLUSIONS:

The Q6W pembrolizumab extended dosing schedule will require fewer visits to infusion centers offering greater convenience and flexibility to hospitals and patients. Our analysis suggests that the Q6W pembrolizumab could generate savings vs other dosing regimens, reducing nurse and physician time, preparation costs, administration time and the number of hospital access for melanoma treatment.

BIBLIOGRAPHY:

- European Medicines Agency (EMA) - RCP YERVOY 5 mg/mL (Ipilimumab) - available at: https://www.ema.europa.eu/en/documents/product-information/yervoy-epar-product-information_it.pdf
- European Medicines Agency (EMA) - RCP OPDIVO 10 mg/mL (Nivolumab) – available at: https://www.ema.europa.eu/en/documents/product-information/opdivo-epar-product-information_it.pdf
- European Medicines Agency (EMA) - RCP KEYTRUDA 50 mg (Pembrolizumab) – available at: https://www.ema.europa.eu/en/documents/product-information/keytruda-epar-product-information_it.pdf

AUTHOR INFORMATION

Daniele Rossi^{1*}, Andrea Marcellusi^{1,2}, Francesco Saverio Mennini^{1,2}

¹ Economic Evaluation and HTA (CEIS- EEHTA) - IGF Department, Faculty of Economics, University of Rome "Tor Vergata", Italy.

² Institute for Leadership and Management in Health - Kingston University London, London, UK

Contact: dan.rossi14@gmail.it

ABSTRACT

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