Local Budget impact analysis tool for Hospital-Based Health Technology Assessment

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Introduction

 Hospitals are faced with a growing demand to implement costly technological innovations



 The economic impact is important for local decision makers, particularly with regard to innovations with little evidence of clinical and medico-economic benefits



 Assessment for implementation must be evaluated as closely as possible to local real-life context



➢ Objective:

To create a local budget impact analysis (BIA) tool

> Methods:

- Adaptation of the BIA methodology on the national budget proposed for public decision-making
- Review and selection of items that could impact the hospital budget, related to:
 - Equipment and consumables
 - Logistical / organizational consequences
 - Eligible population
- Creation of a tool using Excel software

Results

Local BIA was performed for an **ex-vivo perfusion system** for donor hearts



- Economic items considered:
 - Consumables used with the ex-vivo perfusion system, valued based on hospital prices
 - · Additional staff required to use the equipment, valued based on hospital wages
 - · Hospital stays for heart transplantation performed in the hospital, with hypotheses concerning activity

$\textbf{Table 1.} \ Results \ from \ the \ local \ budget \ impact \ analysis, \ assuming \ 6 \ hearts \ transplant \ per \ year \ with \ the \ OCS^{TM}$	
Heart system	

	Total costs* for the first year	Total costs* for the first five years	Total costs* for the ten years
With no increase in	€ 375,000	€ 1,875,000	€ 3,750,000
activity			
With increased activity			
additional transplants**	€ 87,096	€ 435,480	€ 870,960
additional transplants**	€ 15,120	€ 75,600	€ 151,200
additional transplants**	€ -56,856	€ -284,280	€ -568,560

^{*} Costs include consumables (€ 54,000 per transplantation) and staff (an additional perfusionist)

✓ The additional costs related to the implementation of the ex-vivo perfusion system could be offset by an increase in activity



Excel interface with fixed and editable data for simulations and/or regular data updates

Conclusion

A local BIA tool as supplement to the HB-HTA report allows:

- To quantify the economic impact in the context of a given hospital
- Decision-makers to vary input parameters to see their impact on their hospital budget

The BIA tool can be also be used for post-implementation assessment

^{**} Additional transplants without OCSTM Heart system