

A SUPPORTIVE CARE UNIT CAN BE COST EFFECTIVE!

Sophie Morin^{1,2}, Pauline Leroy^{1,3}, Christophe Aubaret^{1,3}, Karine Legeay^{1,3}, Alexandre Saadi^{1,2}, Cloé Brami^{1,2}, Claire Gervais¹, Christian Hervé², Marie-France Mamzer², Clarisse Sauvajot¹, Anne Guillou¹, Garnier Barbara¹, Florian Scotté^{1,2,3}.

1-Supportive Care in Cancer Unit, Medical Oncology Department, Georges Pompidou European Hospital, Paris, France;

2-Ethics Department, René Descartes University, Paris, France

3-Supportive Care in Cancer Unit, Foch Hospital, France

ABSTRACT

Background: Supportive care in cancer (SCC) may create a financial burden, compared to a standard cancer department. Since 2011, a specific SCC inpatient unit has been developed in an academic hospital, based on a multidisciplinary approach in order to anticipate patient's disability and limit emergency hospitalization.

Objective: SCC unit expenses and benefits were compared to Medical (MO) and Gastro-Intestinal (GI) oncology departments, in order to assess its cost effectiveness.

Methods: Data were analyzed over a six year period (2011-2016). Cost of hospital stays and cost per year were calculated based on the hospital's standard cost accounting method. Hospital benefits were calculated as the difference between total incomes and total expenses (cost and Diagnosis Related Group tariffs for the stay) and results were compared (period available for comparison 2011 to 2014).

Results: Total costs for the hospital, in the majority due to staff expenses, were lower for the SCC unit compared to MO and GI in 2011 and 2014, as well as the daily cost per stay (DCS). Benefit per year was also higher in favor of the SCC unit permitting this unit to benefit financially compared to the two other oncology units (Table).

Incomes reimbursed by the National Health system for SCC unit were 1,632,601 euros in 2015 and 2,096,285 euros in 2016 with a total of 357 and 408 patients admitted in the 8 bed SCC unit in 2015 and 2016 respectively.

Conclusion: The SCC unit was less expensive when compared to the other oncology units in our hospital. Our results suggest that its development permitted the oncology department to enhance its quality of care without occurring any additional expenses.

METHODS

To assess activity of the Supportive Care in Cancer Unit, data were analyzed over a six year period (2011-2016).

Cost of hospital stays and cost per year were calculated based on the hospital's standard cost accounting method.

Hospital benefits were calculated as the difference between total incomes and total expenses (cost and Diagnosis Related Group tariffs for the stay).

We compared results over the available period for comparison (2011 to 2014), between 3 cancer department; medical oncology unit, GI oncology unit.

RESULTS

Situation in 2011 (1st year 4 beds)

	Medical Oncology	SCUPP	GI Oncology
Physician Workforce	245 443 €	56 064 €	307 957 €
Nurses Workforce	1 013 142 €	158 119 €	351 916 €
Other Workforce	424 036 €	66 179 €	121 508 €
Total	1 682 621 €	280 362 €	781 381 €

2011: PM = 1 Praticien Attaché Temps Plein + 0,4 ETP PH
PNM = 0,5 ETP cadre + 4 IDE + 2 AS

	Medical Oncology 660 stays	SCUPP 147 stays Recettes brutes	GI Oncology 275 stays
	1 777 335 €	729 453 €	1 205 485 €
Incomes - Expenses	- 638 723 €	329 894 €	18 654 €

2014 8 Beds Staff Costs

	Med Oncol	GI Oncol	SCUPP
Physician Workforce	344 907 €	295 217 €	86 165 €
Nurses Workforce	880 172 €	782 489 €	479 627 €
Others	269 540 €	428 159 €	156 788 €
Total	1 494 619 €	1 505 865 €	722 580 €
	16 Beds	17 Beds	8 Beds

2014 8 Beds Expenses – Incomes Comparison

	GI Oncol	Med Oncol	SCUPP
Total expenditures	2 594 932 €	2 408 747 €	1 172 501 €
Median daily cost	5 810	5 728	2 817
	447 €	421 €	416 €
Recettes théoriques 2014	2 416 580 €	2 735 695 €	1 775 949 €
	- 178 352 €	326 948 €	603 449 €

2014 8 Beds Expenses Comparison (Charges Induites comparées - Examens Complémentaires)

	Labo	Imagerie	EF
HC - ONCO DIG MED	128 160 €	267 462 €	104 643 €
ONCOLOGIE HOSPIT.	92 976 €	108 229 €	14 317 €
UNITE SOINS SUPPORT	22 742 €	142 341 €	6 607 €
	243 878 €	518 032 €	125 568 €

		SCC unit	MO unit	GI unit
Total hospital costs [DCS] (euros)	2011	400,450 (4 beds) [298]	2,742,165 (12 beds) [541]	1,304,182 (9 beds) [344]
	2014	1,172,501 (8 beds) [416]	2,408,547 (16 beds) [421]	2,594,932 (17 beds) [447]
Benefit per year (euros)	2011	329,894	-638,723	18,564
	2014	603,449	326,948	-178,352

Abbreviations: daily cost per stay – DCS; GI – Gastrointestinal; MO – Medical Oncology; SCC – Supportive care in cancer

CONCLUSIONS

The SCC unit is less expensive when compared to the other oncology units in our hospital.

SCC organization may impact hospital incomes.

Our results suggest that its development permitted the oncology department to enhance its quality of care without occurring any additional expenses.