Patients' productivity losses and informal care cost related to ischemic stroke in Rhone area, France

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BACKGROUND

- Economic burden of **stroke** on society estimated at €64 billion in Europe (1) and €7.7 billion in France (2)
- Transient or permanent disabilities: impacts on work productivity and nursing care to support daily activities

➔ **Productivity losses (PL)** = work absenteeism and presenteeism (decrease in productivity) for working patients + leisure time loss for retired or unemployed patients (3)

➔ **Informal care (IC)** is defined as the care provided by a non-professional caregiver, not trained to provide care, and without monetary compensation (4)

METHODS

- **Cross-sectional survey,** performed along with the STROKE69 **prospective population-based cohort** study on all IS patients admitted to any emergency department or stroke unit of the Rhône area between November 2015 and June 2016
- At 12 months post-stroke, 2 questionnaires were mailed: one to IS patients and one to their main informal caregivers

- PL were valued with the Human Capital Approach and the Proxy Good Method (PGM).
- IC was valued according the PGM.

OBJECTIVE

To estimate patients' PL and IC costs for informal caregivers during the first year after among IS patients managed in the Rhone area of France

RESULTS

- **222 respondents** and analysed (response rate = 42%)
- 58% men, mean age = 68.4 yo; 74% retired or unemployed; 86% with a mRs 3-5 at 3 months, **54% received IC**

Table 1 . Informal care provided by main informal caregivers to IS patients according to mRS level: care time and associated costs

	Caregivers (n)	Care time (h/w), mean (SD)	IC cost (€), mean (SD)
All patients[a]	51	25 (40)	**10,635 (17,299)**
Patient mRS 0-2 at 3 months[b]	31	10 (20)	N=30 4,607 (10,197)
Patient mRS 3-5 at 3 months[b]	15	59 (52)	N=13 25,200 (22,419)

Abbreviations: mRS = modified Rankin Scale.
[a]Data were available for 51/108 patients. Main reasons for missing data were the absence of estimation of care time or date of discharge from hospital. [b]mRS at 3 months was missing for 5 patients.

Table 2 . Patient's productivity losses during the 1-year post-stroke (€ (SD))

	PL of patients with a professional activity		PL of retired or unemployed patients[c]	Total PL
	A[a]	P[b]		
All patients	20,870 (15,820)	10,069 (5,954)	2,389 (3,843)	**7,589 (12,305)**
Patient mRS 0-2 at 3 months	19,556 (15,691)	8,998 (5,358)	2,141 (3,483)	7,403 (12,272)
Patient mRS 3-5 at 3 months	30,407 (18,031)	0	3,750 (4,495)	8,015 (12,529)

Abbreviations: A= Absenteeism; P= Presenteeism.
[a]Absenteeism concerned all the patients with a professional activity (n=57).
[b]Only 9/57 patients declared being concerned by presenteeism.
[c]Productivity losses concerned 163/165 retired or unemployed patients, as 2/165 were missing data.

- **Mean total patients' PL the 1st year post-stroke = €7,589** with 5.4% presenteeism, 71.2% absenteeism, 23.4% leisure time (**Table 2**)
- Concerning the 57 working patients before stroke
  - -Mean PL = €22,459 (including 7% of presenteeism)
  - -35/57 returned to work with a mean delay of 97 days

Conclusion

- **First study to value PL including presenteeism and leisure time associated to stroke**
- **PL and IC must be integrated more largely in economic evaluations as it represents a significant cost for society**

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