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**We observed a less favorable one-year outcome in women vs men which was totally mediated by gender differences in age, NIHSS score, and pre-stroke disability**

## What is already known?

### Acute ischemic stroke care pathway of women vs men:

- Sub-optimal management with lower reperfusion rate
- Older age at the time of the stroke
- More often living alone at the time of the stroke
- Lower level of consciousness on admission

## Methods

- Population-based cohort studies : **STROKE69** in 2016
- All patients with a suspicion of acute stroke in the Rhône County
- Analysis of indicators of effectiveness of acute care pathway
- Analysis of one-year disability by Modified Rankin score (mRS)

## Results

1543 ischemic stroke patients, 777 men (50,4%) and 766 women (49,7%)

1059 patients at one year follow-up

Compared to men :

- Prehospital phase
  - more women had their stroke at home or nursing home (p<0.0001)
  - less women called emergency call center (#15) (p=0.018)
  - NIHSS score was higher in women (p=0.005)
- Acute phase in-hospital pathway
  - women were less frequently primarily addressed to a stroke unit (p<0.0001),
  - There was a trend toward a lower access to reperfusion therapy for women (19.9% vs 23.8%) but this was not statistically significant
- One-year follow-up
  - Women had a worse mRS score (p<0.0001) than men, and they died more often (p<0.0001)
- Multivariable regression models
  - Women still less frequently called the centralized emergency call center (p=0.013)
  - Women tended to less frequently Initial admission in a stroke unit/center but not statistically significant (OR 0.72 [0.51-1.01])
  - Access to reperfusion therapy was not associated with gender (p=0.7)
  - No gender effect on mRS score at 12 months once adjusted for age, initial NIHSS, level of dependency, heart rhythm disorders, and reperfusion therapy,

Table 1 : Factors associated with mRS >2 at 12 mths in multivariate regression model

	OR (IC95)	P-value
Women (ref : men)	1.13 (0.8-1.57)	0.487
Age (y)	1.05 (1.04-1.07)	<0.0001
NIHSS score (ref : 0-4)		
5-14	3.67 (2.54-5.33)	<0.0001
15-20	18.16 (10.02-33.96)	<0.0001
>20	23.66 (11.81-49.15)	<0.0001
Patient independent (ref : dependent)	0.22 (0.13-0.35)	<0.0001
Heart rhythm disorder (ref : no)	1.74 (1.17-2.59)	0.006
Reperfusion therapy (ref : no)	0.35 (0.22-0.54)	<0.0001

## Discussion

Why women even after adjustment for age, NIHSS and dependency, less frequently called #15 and tended to be less frequently primarily addressed to a stroke unit (almost statistically significant) is unknown and should be explored. This poorer access to #15 and stroke unit did not result in poorer reperfusion rate nor did affect mRS at 12 months