

### Acute stroke care pathway in the Rhône County, Between 2007 and 2016 Significant increase of :

- Proportion of patients with Stroke mimics from 9.6% to 17.8%, OR: 2.04 [95%CI, 1.61-2.60]
- Patients with Stroke mimics hospitalized in a Stroke unit from 2.3% to 4.8%, OR: 2.10 [95%CI, 1.37 -3.32]

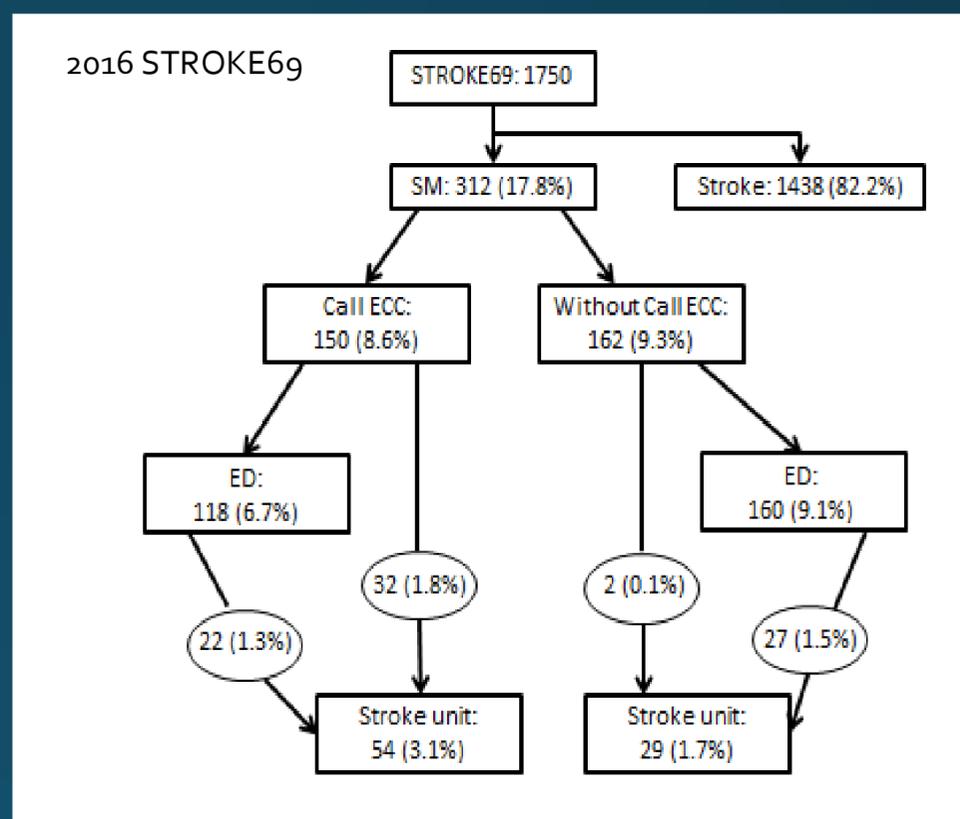
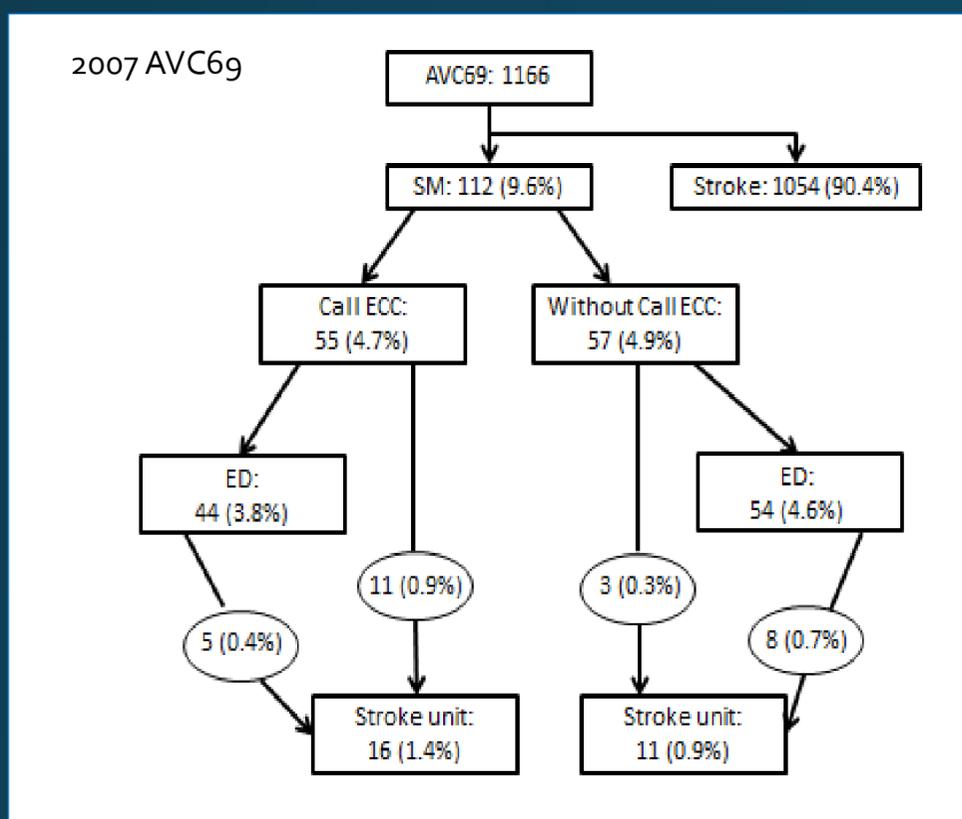
### Background

#### Acute ischemic stroke care pathway from 2007 to 2016 :

- Improved awareness of the public
- Improved effectiveness of pre and intra-hospital management
- How Stroke mimics management evolves in parallel
- Does increasing sensitivity decrease specificity ?

### Methods

- Two similar population-based cohort studies : **AVC6g** in **2007** and **STROKE6g** in **2016**
- All patients with a suspicion of acute stroke in the Rhône County
- Several actions for improving acute stroke management, including public awareness campaigns implemented between 2007 and 2016



### Results

1166 patients with suspected stroke in 2007 (AVC6g), 1750 in 2016 (STROKE6g)

Between 2007 and 2016 :

- Patients calling #15 (regional emergency call center) for a suspected stroke increased from 33.9% to 59.7% (OR: 2.89 [95%CI, 2.47-3.39])
- Patients receiving a reperfusion therapy (either IVT and/or EVT) increased from 9 to 23% (OR: 3.22 [95%CI, 2.33-4.49])
- Among all patients with a suspicion of stroke, the proportion of stroke mimics increased significantly from 9.6% to 17.8% (OR: 2.04 [95%CI, 1.61-2.60]), and that of patients inappropriately hospitalized in a stroke unit with a SM increased significantly from 2.3% to 4.8% (OR: 2.10 [95%CI, 1.37 -3.32])
- The probability of being admitted in stroke unit for Stroke Mimic patients remained higher during the second period after adjustment for age, sex, and realization of brain imaging (OR: 1.66 [95%CI, 1.06-2.65])

### Discussion:

- Whether these results correspond to a real increase of the proportion of Stroke Mimics patients or rather to an improved imaging diagnosis leading to decrease overestimation of ischemic strokes has to be investigated.
- Nevertheless, reducing the rate of Stroke mimics patients admitted in stroke units/centers remains a challenge

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