

# CLINICAL AND FUNCTIONAL DIFFERENCES AT 1-YEAR FOLLOW-UP BETWEEN NURSING HOME AND COMMUNITY DWELLING HIP FRACTURE PATIENTS

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# CONFLICT OF INTEREST DISCLOSURE

No potential conflict of interest to report

# INTRODUCTION

- Hip fracture (HF) has an estimated incidence of 620000 cases per year in the European Union in 2010
- 17%-40% of HF patients came from nursing home
- Nursing home HF patients have more functional impairment, more comorbidities and maybe worst outcome after hip fracture
- Most studies including nursing home HF patients have a short follow-up, a limited number of variables and small series of patients

# OBJECTIVE

The aim of this study was to know if there are differences in clinical and functional outcomes at 1-year of follow-up.



Nursing home (NH)



Community dwelling (CD)

# METHODS

- All patients admitted with HF to a co-managed orthogeriatric unit in a 1,100-bed university hospital were included.

January 2013						
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February 2014						
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9	10	11	12	13	14	15
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- A geriatric assessment protocol: function (Barthel Index, Functional Ambulation Categories (FAC) scale, hand grip strength) , nutrition (body mass index, total protein, albumin), bone metabolism (vitamin D), pain and anaemia (FONDA protocol).



# METHODS

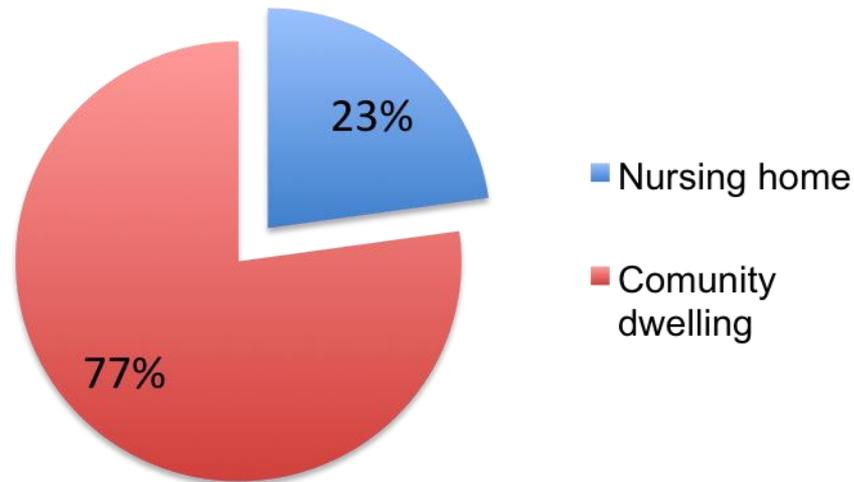
- Patients were classified in two groups in function of their previous place of residence.
- Patients were assessed at two moments:
  - In the first 72 hours of admission
  - One year later were contacted by telephone and requested about vital and functional status and readmissions.
- Decline in Functional Ambulatory Category scale was defined as
  - Mild**: If the patient had **1 point** decline in **FAC scale**
  - Moderate/severe**: If the patient had **≥2 points** decline in **FAC scale**



# RESULTS

509 patients were included

Place of residence



Baseline characteristics of Community-dwelling and nursing home hip fracture patients. Results as mean ( $\pm$  standard deviation), median (interquartile range) or number (percentage)

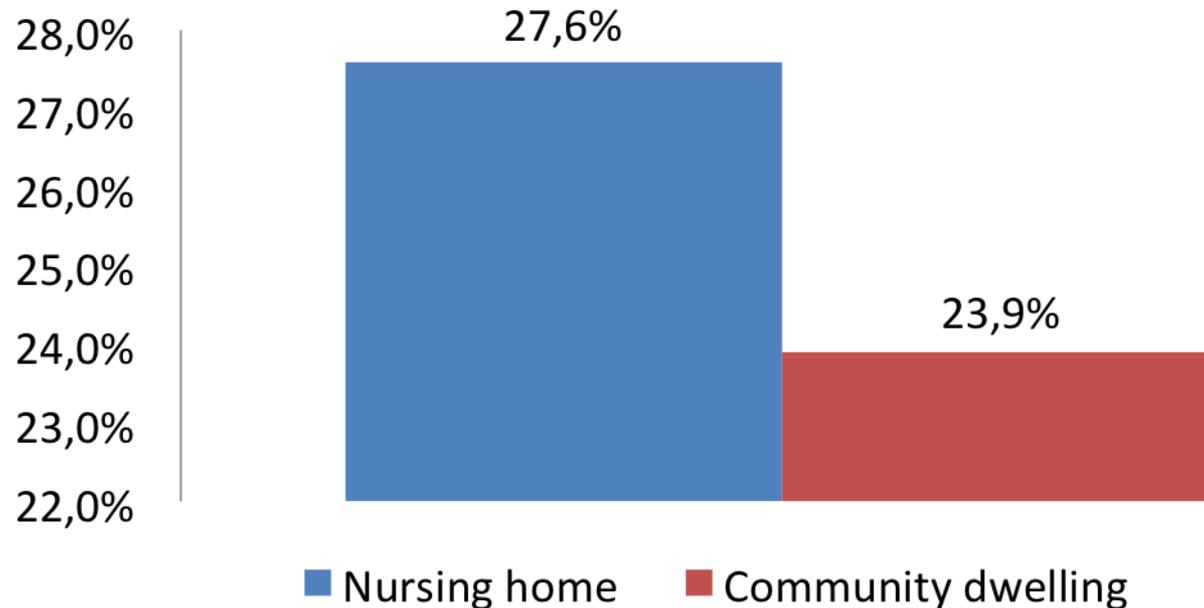
	Nursing home	Community	p
<b>Number</b>	116 (22.8)	393 (77.2)	
<b>Age (years)</b>	88,5 (85-92)	85 (80-90)	<0.001
<b>Women</b>	92 (79.3)	311 (79.1)	ns
<b>Assessment</b>			
<b>Barthel Index</b>	55 (36.25-80)	90 (75-100)	<0.001
<b>Functional Ambulatory Category</b>			<0.001
<b>0</b>	11 (9.5)	7 (1.8)	
<b>1 a 3</b>	34 (29.3)	54 (13.7)	
<b>4 a 5</b>	71 (61.2)	332 (84.5)	
<b>Technical aids</b>	64 (68.1)	174 (48.6)	0.001
<b>Red Cross Mental Scale &gt;1</b>	60 (51.7)	105 (26.7)	<0.001
<b>Diseases</b>			
<b>Heart Disease</b>	46 (39.7)	149 (37.9)	ns
<b>COPD</b>	11 (9.5)	35 (8.9)	ns
<b>Ictus</b>	19 (16.4)	54 (13.7)	ns
<b>Diabetes</b>	27 (23.3)	92 (23.4)	ns
<b>Renal failure</b>	31 (26.7)	109 (27.7)	ns
<b>Cancer</b>	23 (19.8)	42 (10,7)	0.001
<b>On antiagregant/anticoagulant drugs</b>	58 (50.0)	182 (46.3)	ns

In-hospital evolution of community-dwelling and nursing home hip fracture patients. Results as mean ( $\pm$  standard deviation) or number (percentage)

	Nursing home	Community	p
Operated on	108 (93.1%)	383 (97.5%)	0.026
Length of stay	9.2 ( $\pm$ 4.0)	10.4 ( $\pm$ 5.2)	0.013
In-hospital mortality	4 (3.4%)	17 (4.3%)	0.796
Destination at discharge			
Own home	0 (0%)	126 (32.1%)	<0.001
Nursing home	108 (93.1%)	24 (6.1%)	
Intermediate Unit	4 (3.5%)	223 (56.8%)	
Lost	0 (0%)	3 (0.8%)	

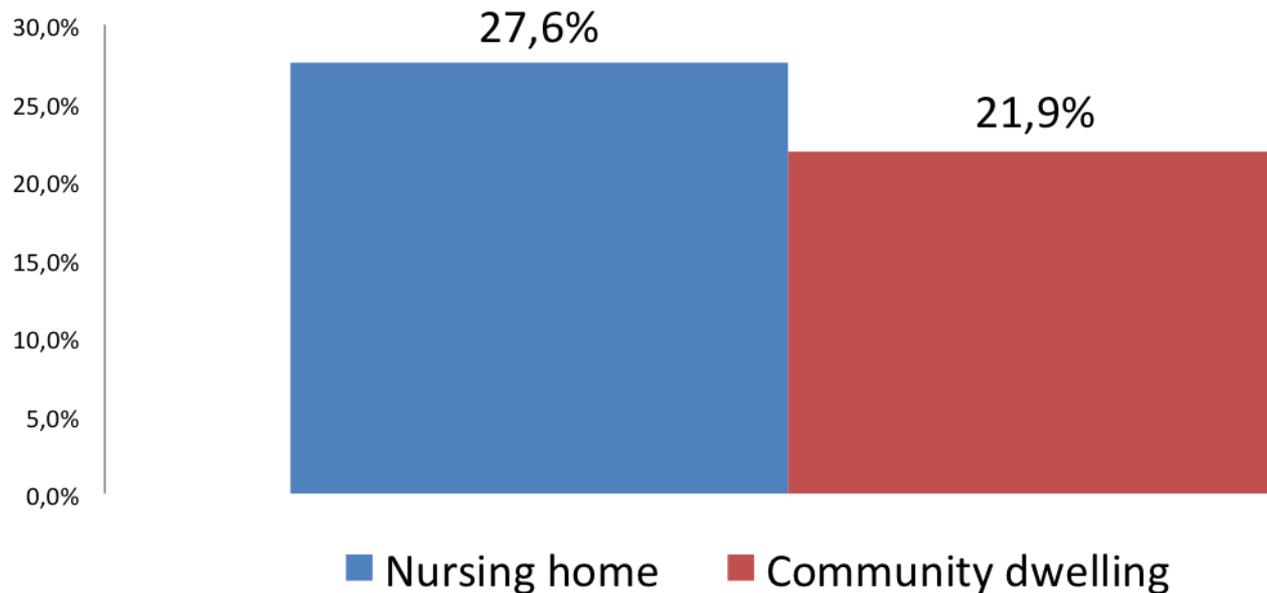
# RESULTS

At 1 year follow-up NH patients had a similar **hospital readmissions** (p=0.479)

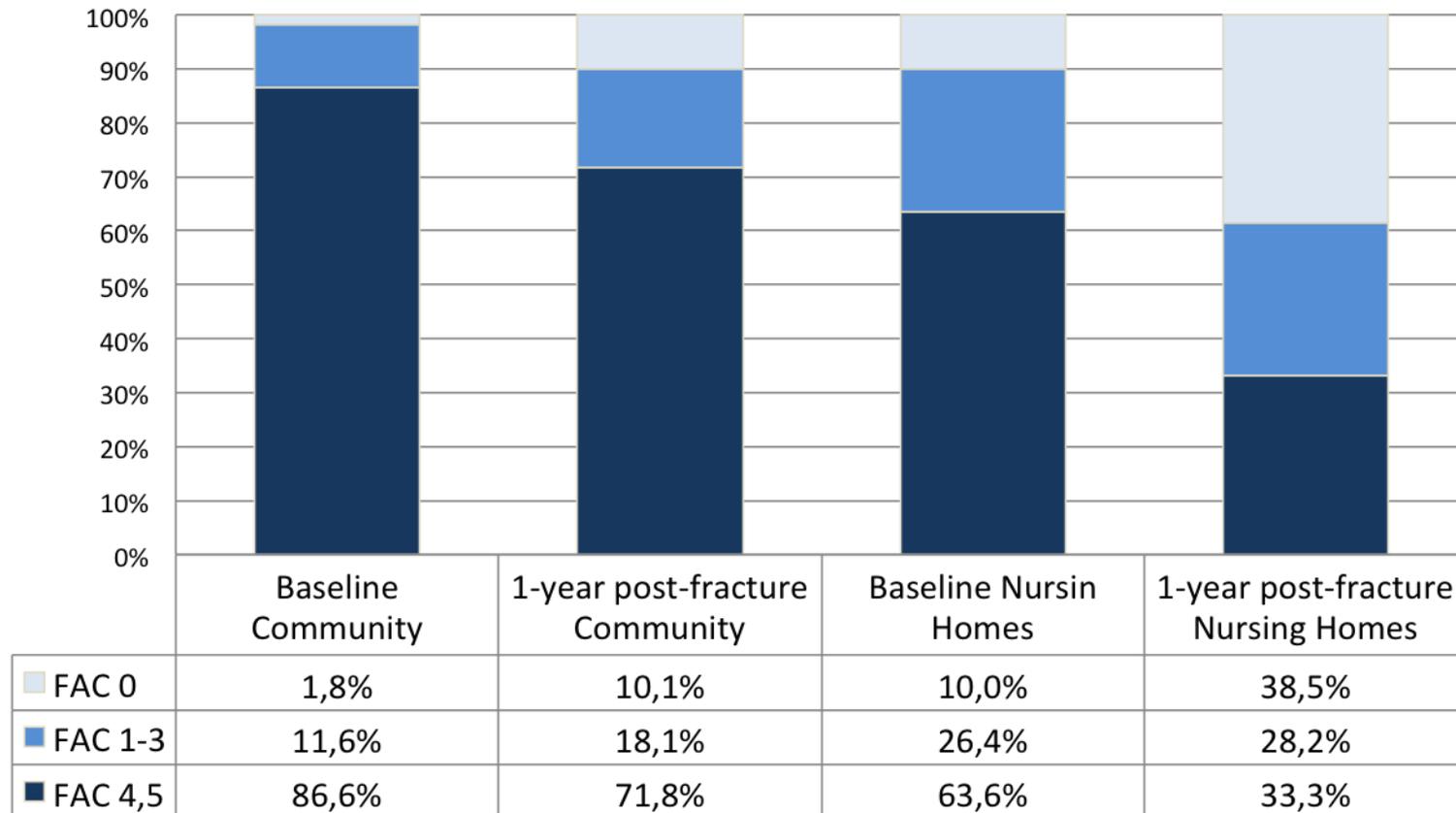


# RESULTS

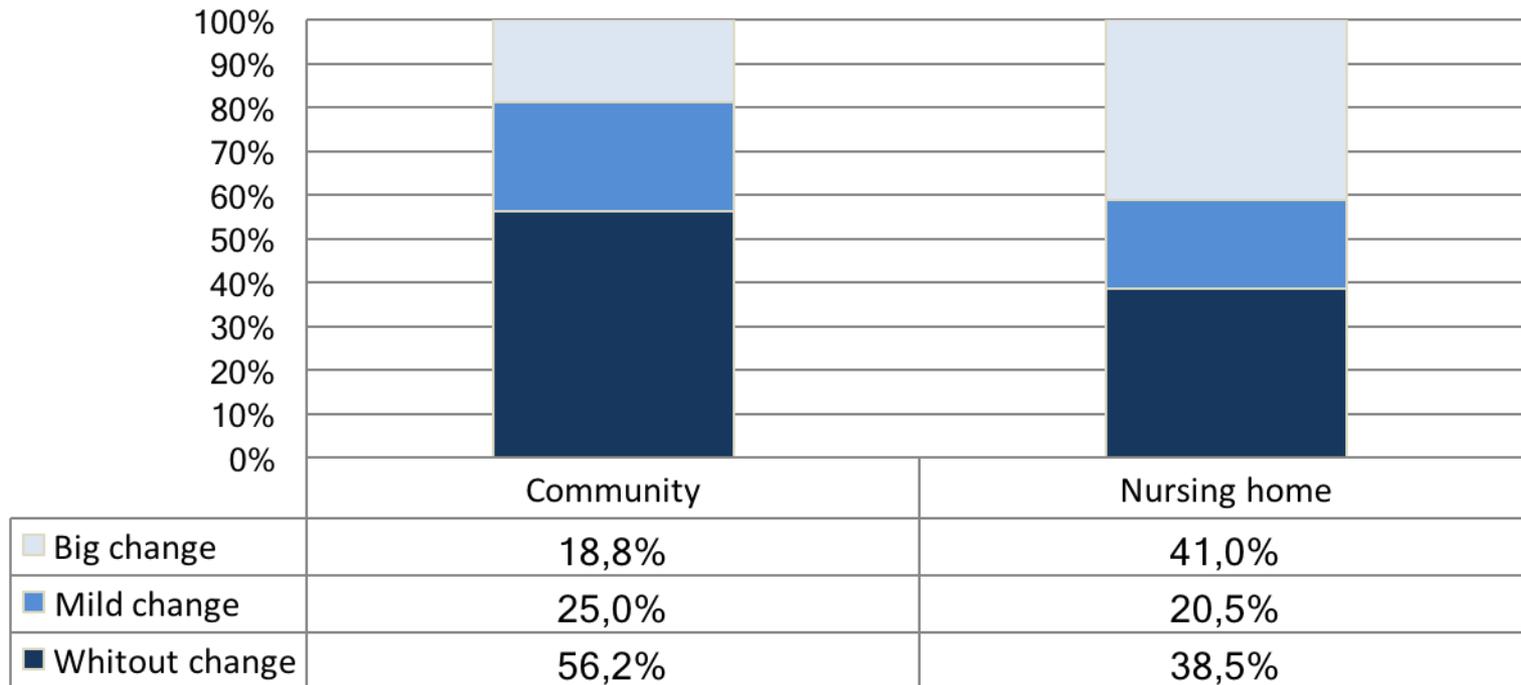
At 1 year follow-up NH patients had a similar **mortality** rate than CD patients (p=0.201)



## Baseline and 1-year-post-fracture Functional Ambulatory Category (FAC) in community dwelling and nursing home patients (p<0.001)



Change on Functional Ambulation Category (FAC) since baseline to 1-year post-fracture in community-dwelling and nursing home patients (Mild Change: Baseline FAC – 1-year FAC = 1; Big Change: Baseline FAC – 1-year FAC =  $\geq 2$ ) ( $p < 0.001$ ).



# CONCLUSIONS

- Nursing home HF patients:
  - Had a worst baseline functional and mental situation.
  - If treated by means of a specific orthogeriatric assessment and management protocol did not die or were readmitted more frequently at 1-year follow-up.
  - Reached their baseline gait ability less frequently and had more functional decline than CD patients.
- It may be to intensify rehabilitation of these patients in order to improve their functional outcomes



THANK YOU FOR YOUR ATTENTION

