QUALITY OF CARE AND MORTALITY IN HIP FRACTURE PATIENTS IN THE COURSE OF THE COVID PANDEMIC: A POPULATION BASED COHORT STUDY

Alma B. Pedersen, Nickolaj Risbo, Bjarke L. Viberg, Henrik Palm, and Niels Dieter Röck









CONFLICT OF INTEREST: NONE





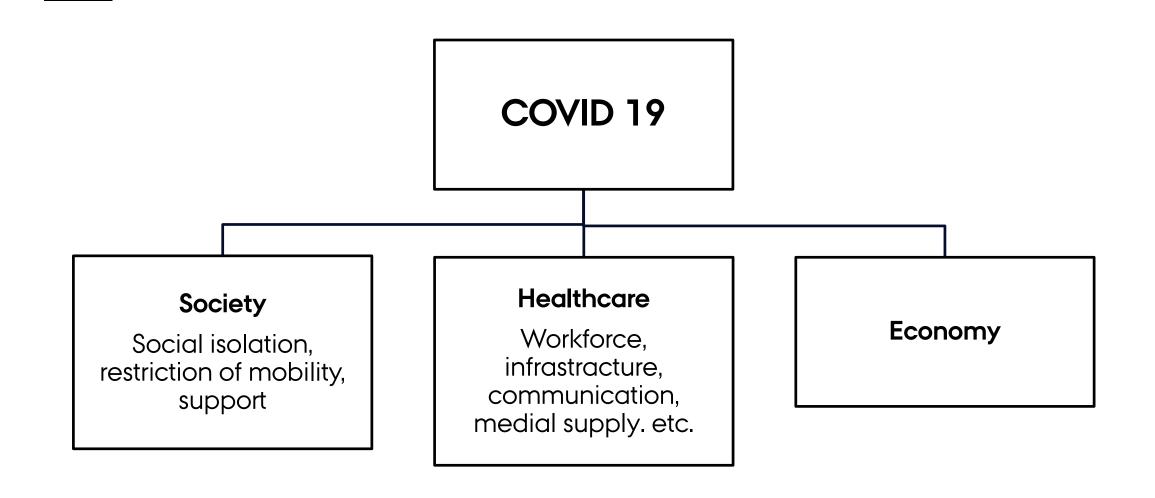




BACKGROUND

In the (interdisciplinary) register steering group, we wondered about an increase in the 30-day mortality seen during the Corona period.

BACKGROUND





We assessed

- quality of in-hospital care
- 30-day mortality

for hip fracture patients in Denmark before and during the COVID pandemic.

METHODS

Data source: Danish Multidisciplinary Hip Fracture Registry (Dansk Tværfagligt Register for Hoftenære Lårbensbrud)

Outcome:

- In-hospital quality indicators
- Mortality 30-day
- (Readmissions, reoperation)

- 1. Preoperative optimization
- 2. Surgery delay 24h
- 3. Surgery delay 36h
- 4. Mobilization 24h
- 5. Nutrition status
- 6. Basis mobility prefracture
- 7. Basis mobility postfracture
- 8. Rehabiliation
- 9. Osteoporosis prophylaxis
- 10. Fall prophylaxis

METHODS

Exposure:

Pre-COVID (baseline) period

3 March, 2019–10 March, 2020

N = 6,575

COVID period

11 March, 2020-27 January, 2021

N = 5,019

RESULTS – QUALITY OF CARE

28.4	34.9	1.23 (1.17-1.30)	——
"	39.8	1.40 (1.26-1.57)	
"	33.9	1.19 (1.08-1.31)	
"	34.4	1.21 (1.13-1.30)	
"	31.8	1.12 (1.03-1.22)	
"	39.7	1.40 (1.28-1.53)	
			1.0 1.2 1.4
	" " "	" 39.8 " 33.9 " 34.4 " 31.8	" 39.8 1.40 (1.26-1.57) " 33.9 1.19 (1.08-1.31) " 34.4 1.21 (1.13-1.30) " 31.8 1.12 (1.03-1.22)

RESULTS – QUALITY OF CARE

	% fulfilled (baseline)	% fulfilled (period)	Proportion ratio (95% CI)	
Individual quality indicators				:
Preoperative optimization	61.9	65.4	1.06 (1.03-1.09)	-
Surgery delay 24h	70.7	69.7	0.99 (0.96-1.01)	-
Surgery delay 36h	88.5	87.6	0.99 (0.98-1.00)	•
Mobilization 24h	78.7	79.9	1.01 (1.00-1.03)	-
Nutrition status	70.7	80.9	1.14 (1.12-1.17)	
Basis mobility pre	92.9	93.2	1.00 (0.99-1.01)	
Basis mobility post	89.6	89.7	1.00 (0.99-1.01)	÷
Rehabiliation	95.1	95.8	1.01 (1.00-1.02)	•
Osteoporosis proph	91.3	90.5	0.99 (0.98-1.00)	-
Fall proph	89.8	88.0	0.98 (0.97-0.99)	-
				1.0

RESULTS – 30 DAY MORTALITY

	N (deaths) / total	Mortality risk	Crude HR (95% CI)	Adjusted HR (95% CI)			
All							
Baseline	622 / 6,575	9.5	Reference	Reference			
COVID19 period	642 / 5,919	10.8	1.16 (1.04-1.29)	1.15 (1.03-1.30)	-	-	
First national lockdown	59 / 532	11.1	1.18 (0.91-1.54)	1.19 (0.90-1.57)	-	-	
Gradual reopening	113 / 963	11.7	1.26 (1.03-1.53)	1.31 (1.06-1.62)	-	-	-
Few restrictions	212 / 2,112	10.0	1.07 (0.91-1.25)	1.13 (0.96-1.33)	÷	•	
Regional lockdown	157 / 1,464	10.7	1.14 (0.96-1.36)	1.07 (0.89-1.29)			
Second national lockdown	101 / 848	11.9	1.27 (1.03-1.57)	1.17 (0.94-1.47)	<u> </u>	_	

In-hospital mortality:

4% in baseline period vs. 4.4% in the overall COVID period.

CONCLUSIONS

Compared to pre-COVID period, in the COVID period

- The quality of in-hospital care for hip fracture patients in Denmark was slightly higher
- The 30-day mortality was also slightly higher
- Similar in-hospital mortality

Perspectives

Good quality of in-hospital care and vaccinations



Lack of home rehabilitation and care, family support, and social isolation







