

# Recurrence and/or death after a first *Clostridium difficile* symptomatic infection: influence of prior therapy by proton pump inhibitor

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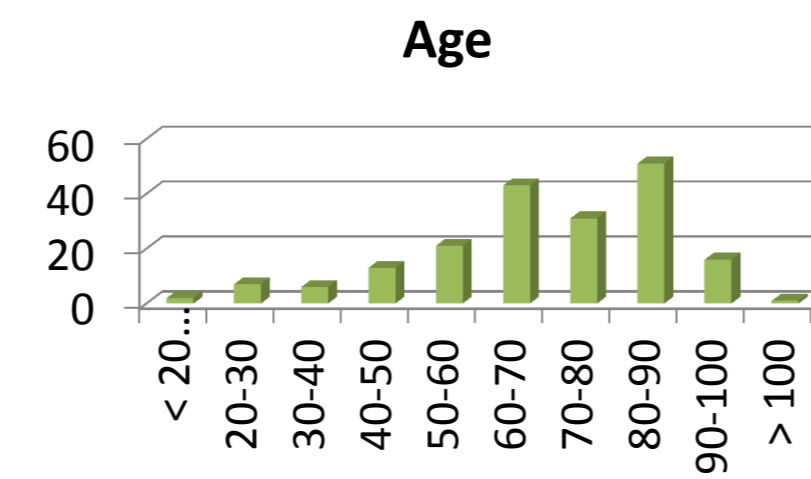
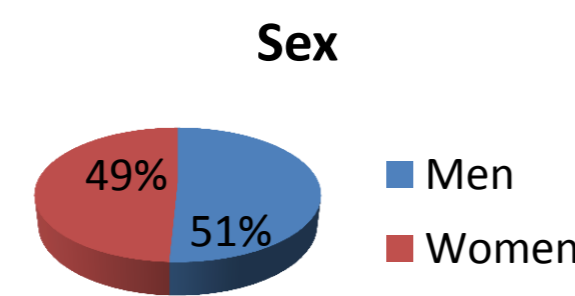
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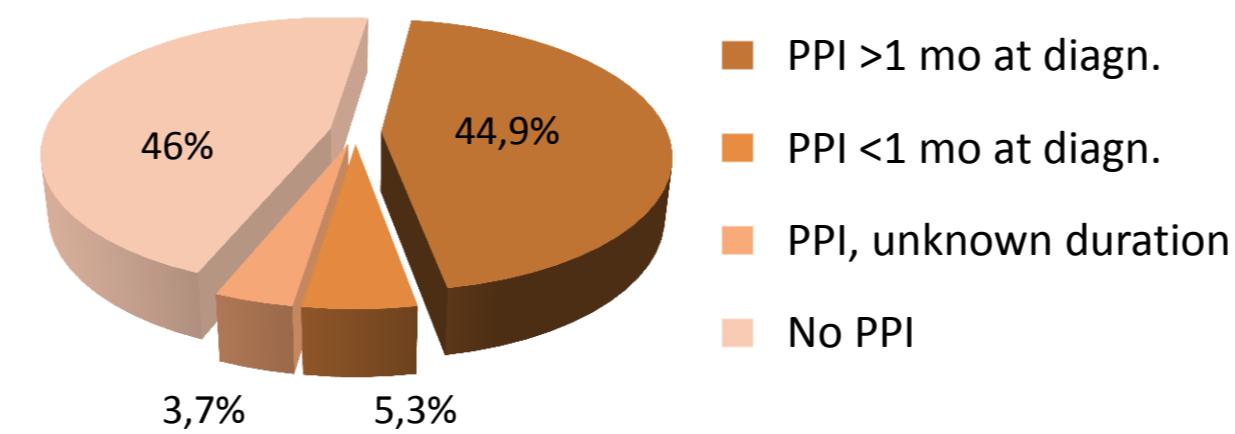
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## Results

### Population

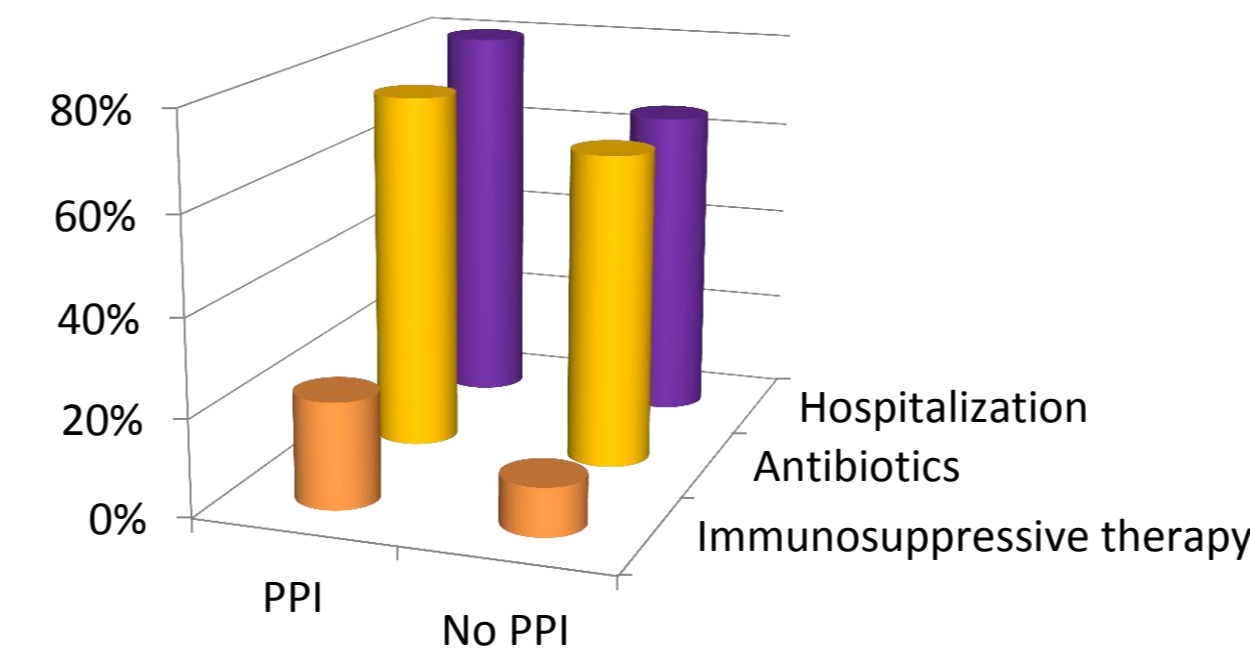


### Proton pump inhibitor therapy



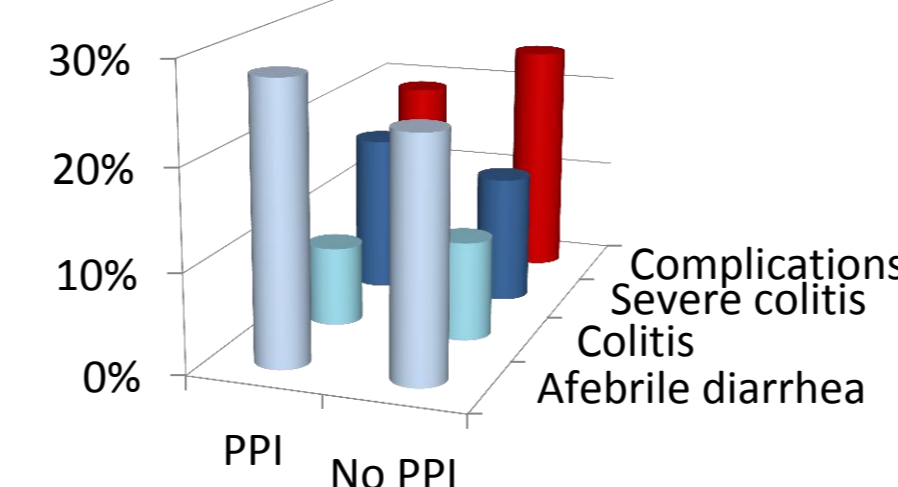
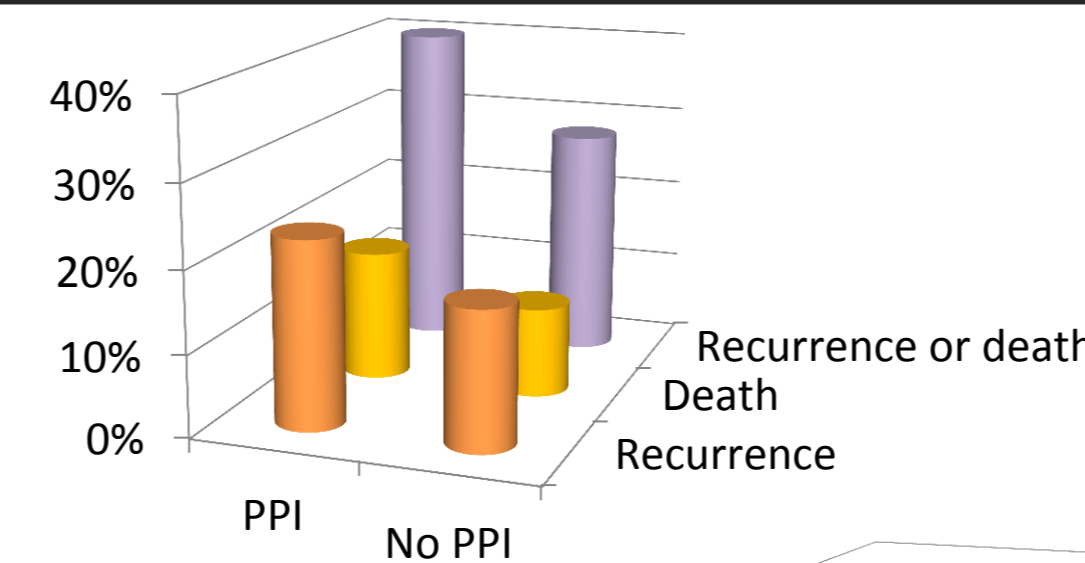
### Classical CDAD risk factor distribution

	Total n = 189 (%)	Ongoing PPI therapy at diagnosis	
		Yes n = 102 (%)	No n = 87 (%)
Antibiotic treatment within 1 month	133 (69,6)	76 (74,5)	57 (65,5)
Hospitalization within 3 month	139 (72,7)	82 (80,3)	57 (65,5)
Immunosuppressive therapy	32 (16,8)	23 (22,5)	9 (10,3)

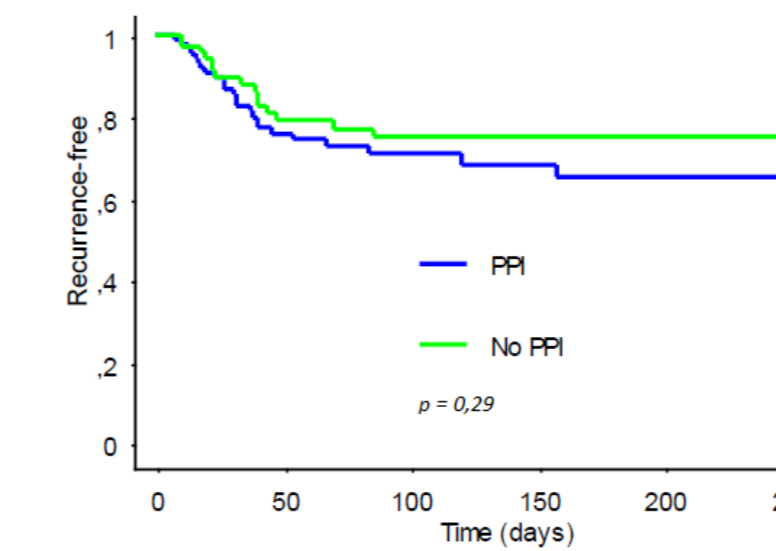


### Primary and secondary endpoints

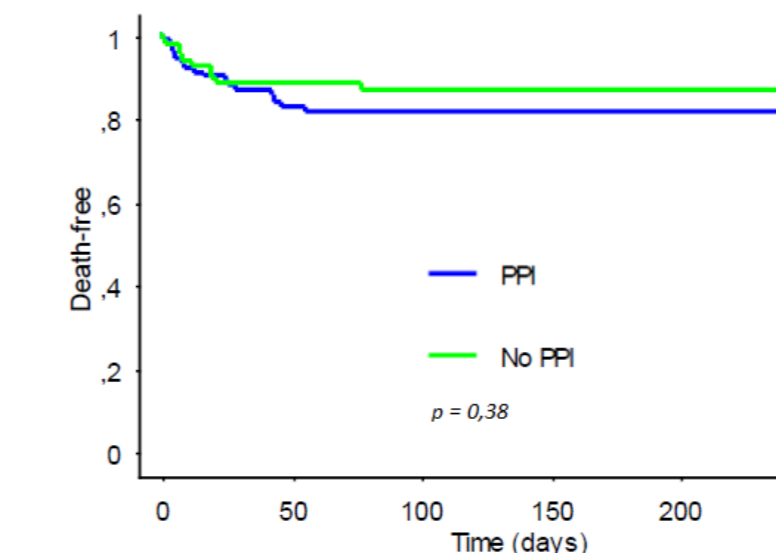
	Total n = 189 (%)	Ongoing PPI therapy at diagnosis		p value
		Yes n = 102 (%)	No n = 87 (%)	
Recurrence	39 (20,2)	24 (23,5)	15 (17,2)	0,51
Death	27 (14,1)	17 (16,6)	10 (11,5)	0,49
Recurrence or death	66 (34,6)	41 (40,2)	25 (28,7)	0,16
Clinical form :				
Afebril diarrhea	93 (48,7)	48 (47,1)	43 (49,4)	0,87
Febril diarrhea	50 (26,1)	29 (28,4)	21 (24,1)	
Colitis	18 (9,4)	9 (8,8)	9 (10,3)	
Severe colitis	29 (15,1)	17 (16,6)	12 (13,8)	
Complications	41 (21,5)	20 (19,6)	21 (24,1)	0,46



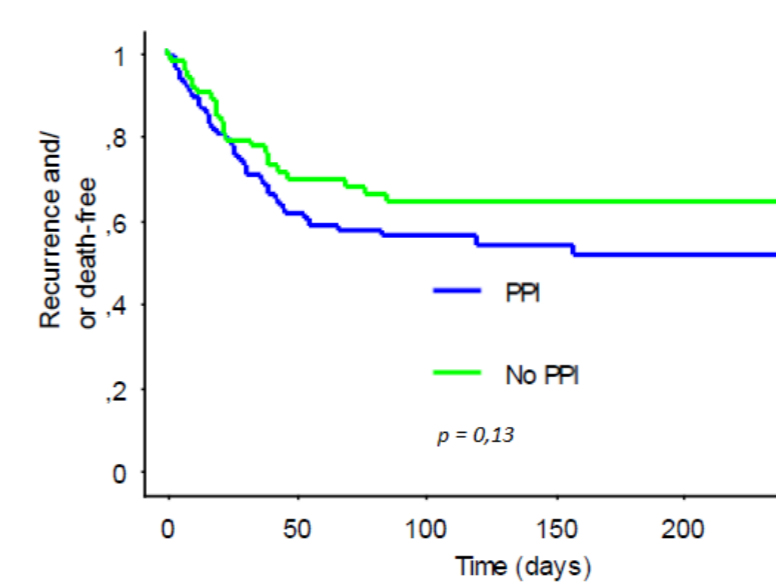
### Time to recurrence



### Time to death



### Time to recurrence and/or death



## Background:

Previous works suggested that proton pump inhibitor (PPI) prescription may be associated with a higher risk of infection, including *Clostridium difficile* associated disease (CDAD) [1]. PPI prescription has also been associated with a poor outcome in CDAD [2].

## Objectives:

To determine whether patients with a prior PPI treatment had a higher risk of severe form, recurrence or death when diagnosed with a toxigenic *C. difficile* infection.

## Population and method:

All cases of patients with a symptomatic infection by a toxigenic *C. difficile* strain during year 2012 were retrospectively analyzed. 189 patients were included. Patients were classified as « PPI » if they were receiving PPI at the time of the *C. difficile* infection diagnosis.

## Discussion & conclusion:

There is no significant association between prior PPI intake and recurrence and/or death in patients with toxigenic *C. difficile* infection, although a trend for more recurrence or death is observed for patients receiving PPI. Furthermore, no difference between clinical forms and complication rate on PPI-taking patients was observed. Studies with a larger population must be performed to explore the risk associated to PPI.

[1] Kwok et al. Risk of *Clostridium difficile* infection with acid suppressing drugs, and antibiotics: a metaanalysis. *Am J Gastroenterol*, 2012 Jul; 107(7): 1011-9

[2] Morrisson et al. Risk factor associated with complications and mortality in patients with *Clostridium difficile* infection. *CID*, 2011 Dec; 53(12): 1173-8