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## INTRODUCTION

- Endotracheal intubation is frequently used in critical care to maintain vital signs in unstable patients<sup>(1)</sup>
- It is also known to potentially cause several adverse events, including post-intubation hypotension (PIH)<sup>(2)</sup>
- Occurrence of PIH seems to be linked with higher mortality rates and morbidity<sup>(3)</sup>

## OBJECTIVE

To evaluate mortality rates and length of in-hospital stay in patients who experienced PIH in the ED.

## METHOD

- Retrospective cohort study of 389 patients realized in a level-one trauma center: Hôpital de l'Enfant-Jésus, QC
- Definition of post-intubation hypotension (PIH) :  $\geq 1$  measure of sustained systolic blood pressure  $< 90$  mm Hg in the first 5, 15, 30 min after intubation and at all times after intubation (up to 60 min)

### Inclusion criteria

- $\geq 16$  years-old
- Intubation performed in the ED resuscitation room

### Exclusion criteria

- Patients intubated before ED arrival
- $> 3$  attempts before successful intubation or unsuccessful intubation
- Need for surgical airway access
- Absence of vital signs prior to intubation

## PRELIMINARY RESULTS

Table 1. Description of the cohort

Demographic characteristics	Total (n=389)	PIH+ (n=165)	PIH- (n=224)	p-value
Age (years), mean $\pm$ STD <sup>1</sup>	55.3 $\pm$ 18.3	58.9 $\pm$ 16.6	52.7 $\pm$ 19.0	0.0009
Sex (male), n (%) <sup>3</sup>	223 (57.6)	82 (50.00)	141 (63.2)	0.0093
Time spent in the resuscitation room (min) median (IIQ) <sup>2</sup>	62 (45-83)	70 (51-100)	56 (41-7)	0.2836
Measures of SBP available (median (IIQ))	18 (11-26)	21 (15-31)	15 (10-2)	<0.0001
Reasons of consultation <sup>3</sup> n (%)				
Trauma	66 (17.2)	29 (17.6)	37 (16.9)	<0.0001
Chest pain	16 (4.2)	11 (6.7)	5 (2.3)	
Dyspnea	60 (15.6)	40 (24.2)	20 (9.1)	
Alteration of level of consciousness	205 (53.4)	69 (41.8)	136 (62.1)	
Others	37 (9.6)	16 (9.7)	21 (9.6)	
Medication used prior/ for intubation n (%) <sup>*</sup>				
Fentanyl	166 (42.7)	87 (52.7)	79 (35.3)	0.0006
Etomidate	164 (42.2)	61 (37.0)	103 (46.0)	0.0752
Ketamine	44 (11.3)	31 (18.8)	13 (5.8)	<0.0001
Propofol	295 (75.8)	114 (69.1)	181 (80.8)	0.0077
Midazolam	131 (33.7)	69 (41.8)	62 (27.7)	0.0035
Neuromuscular bloker	344 (88.4)	137 (83.0)	207 (92.4)	0.0043

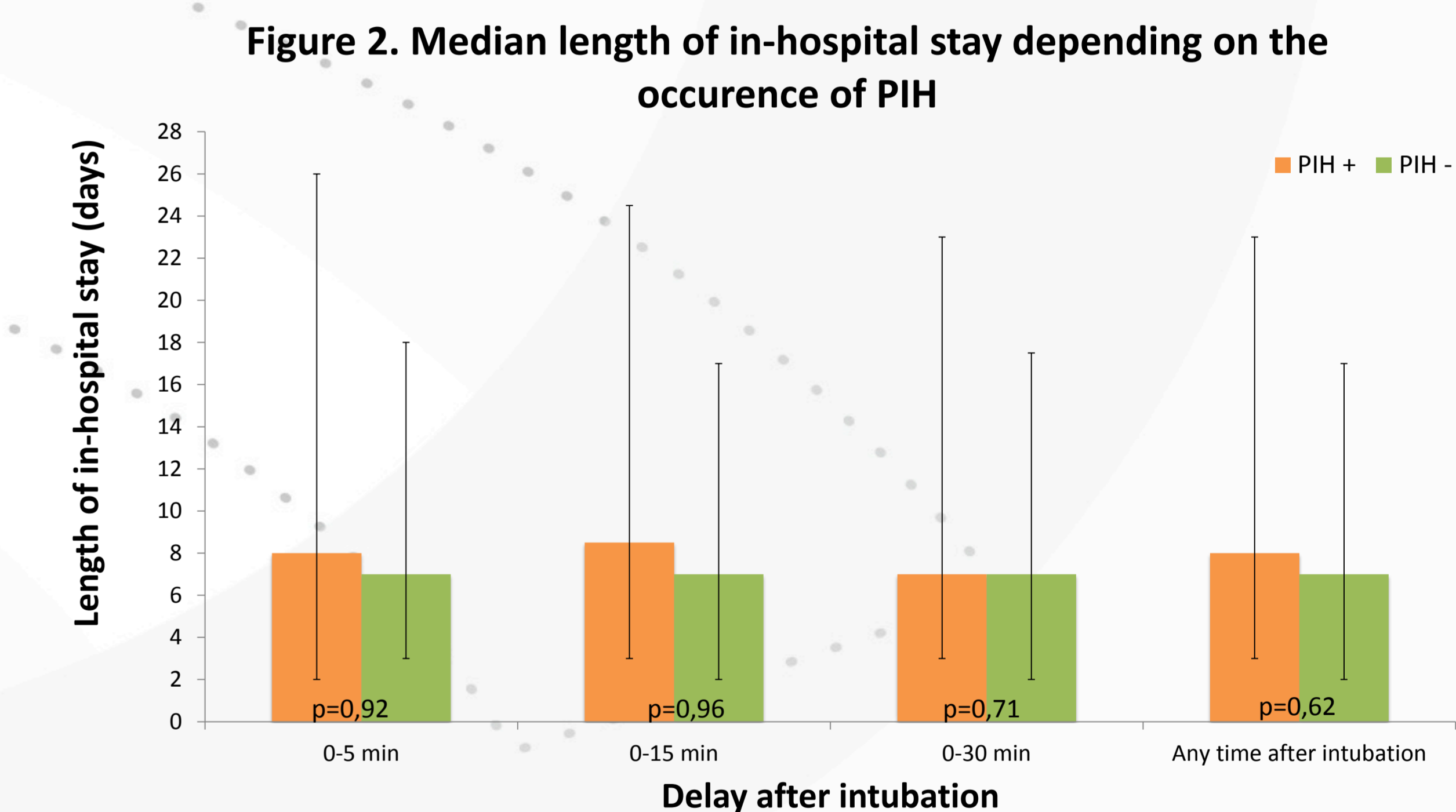
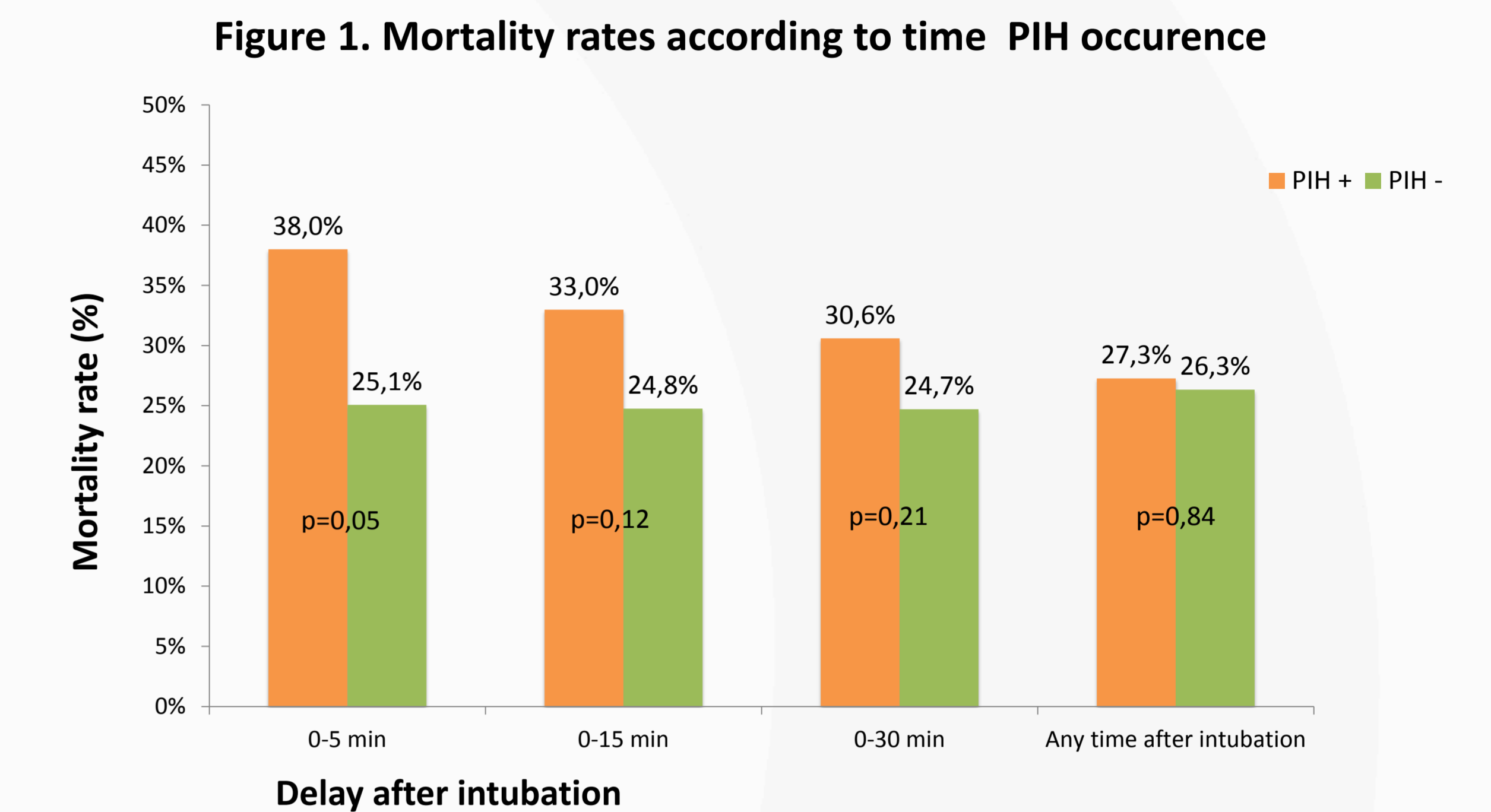
Sex : Missing = 2; Reason of consultation : Missing n=5

## CONCLUSION

- Patients who experienced PIH within the first 5 minutes tend to have higher rates of in-hospital mortality.
- Length of in-hospital stay does not seem to be longer in the group of patients who sustained PIH.
- Further analyses are required to establish a direct link between PIH and increased rates of mortality.

### REFERENCES :

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