

PIH in TRAUMA

Postintubation Hypotension



RESEARCH QUESTIONS



How prevalent is postintubation hypotension (PIH) in trauma patients?
Is PIH development associated with adverse outcomes in these patients?

SIGNIFICANCE



- There is evidence that PIH in critically ill patients in ED and ICU settings is associated with increased morbidity and mortality.
- It is unclear if trauma patients who develop PIH have greater morbidity and/or mortality compared with trauma patients who do not develop PIH.

METHODS

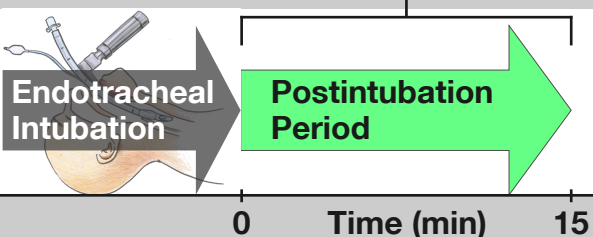


- Retrospective case series of all adult trauma patients intubated at a tertiary trauma centre in Halifax, Nova Scotia between 2000 and 2015.
- We evaluated prevalence of PIH and created a logistic regression model to determine the odds of morbidity/mortality in PIH & non-PIH groups.

Definition of PIH:

- Pre-ETI hypotension: >5mmHg
- Use of a vasopressor
- MAP to ≤ 60 mmHg
- SBP to ≤ 80 mmHg

Any of the above within 15 min of ETI



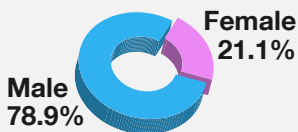
RESULTS



477 Intubated Trauma Patients

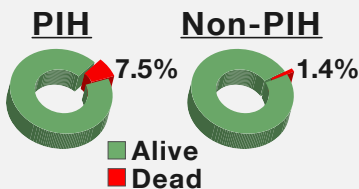
Prevalence of PIH = **36.3%**

Characteristics

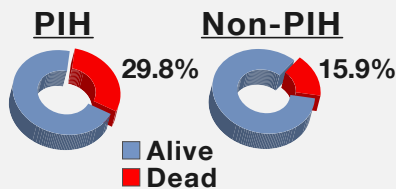


	PIH	Non-PIH
Mean Age	44.8	39.0
ISS ≥ 12	84.8%	75.4%

ED Mortality



In-Hospital Mortality



Odds: PIH & Mortality

Variable = PIH (Reference = Non-PIH)

ED Mortality

OR 3.45 (95% CI 1.42 - 8.36), p = 0.006

In-Hospital Mortality

OR 1.83 (95% CI 1.01 - 3.31), p = 0.047

TAKE HOME MESSAGE



- In our study of major trauma patients requiring endotracheal intubation, development of PIH was common and associated with increased mortality.
- These findings suggest that there may be potentially important patient safety issues related to the practice of ETI in critically ill trauma patients.