

Outcome of emergency department patients with non-traumatic hypotension

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ABSTRACT

Objective:

To determine the mortality, length of stay and outcomes in a cohort of emergency department (ED) patients with non-traumatic hypotension.

Design:

Prospective observational pilot study.

Setting:

The Northern Hospital, a 300-bed urban district teaching hospital with 45,000 adult ED presentations a year.

Participants:

Patients over 18 years old with non-traumatic hypotension defined as systolic blood pressure below 100mmHg were recruited based on observations collected during their stay in emergency department by a dedicated research assistant. Patients with a history of trauma relating to the presenting complaint were excluded.

Outcome measures:

28-day mortality rates, ICU admissions, length of stay (LOS), rates of representation and Medical Emergency Team (MET) calls.

Results:

Ninety-one ED patients with documented hypotension were enrolled, of which 70.4% were admitted. Hypotension was categorized by duration to single, recurrent, sustained or sustained prolonged hypotension. Overall 28-day inpatient mortality rate was 12.5%, all of whom had sustained prolonged hypotension and the majority of whom had the lowest median blood pressure between 70 - 89 mmHg. Median age and total length of stay was higher and median systolic blood pressures were lower in patients who died than in those who survived. ICU admission rates, MET calls and representation rates increased with duration of hypotension but were inconclusive with regards to depth of hypotension. All patients survived beyond ED stay.

Conclusion:

This observational pilot study suggests that sustained prolonged hypotension in ED may be associated with inpatient mortality and increased length of stay. ICU admissions, MET calls and representation rates were also found to increase with duration of hypotension. Further studies are needed to consolidate these findings within Australia.