

Emergency Department Research Newsletter

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Research Bulletin at St. Vincent's Hospital

If you'd like to make contributions to this newsletter regarding interesting ideas or thoughts about research, please do not hesitate to email them to me.

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UPDATES

Rachel Ling and Janine Diamond have been working on a new level 3 Timeout for procedural sedation and intubation. The intuitive single page document should be assimilated into our practice anytime now. Watch this space...

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INSIDE THIS ISSUE

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- 2 Current research, studies, audits, projects cont'd
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Publications

Ambulance management of patients with penetrating truncal trauma and hypotension in Melbourne, Australia

Eva ROSENBAUM, Shelley COX, Karen SMITH, Mark FITZGERALD, George BRAITBERG, Anthony CARPENTER and Stephen BERNARD

doi: 10.1111/1742-6723.13450

Abstract

Objective: Penetrating truncal trauma with hypotension is uncommon in Australia. Current pre-hospital clinical practice guidelines based on overseas studies recommend expedited transport to definitive trauma care and that i.v. fluid should only be administered to maintain palpable blood pressure.

Methods: A retrospective review included all adult patients with penetrating truncal trauma and hypotension (systolic blood pressure <90 mmHg) attended by emergency medical services in Victoria between January 2006 and December 2018.

Patient pre-hospital characteristics and hospital outcomes are described using descriptive statistics. Predictors of fluid resuscitation and mortality were examined using logistic regression analyses.

Results: Between 2006 and 2018 there were 101 hypotensive, penetrating truncal injury major trauma patients in Melbourne, Victoria transported by road ambulance to a major trauma service. The median age of these patients was 38 years (interquartile range [IQR] 27–50) and 85% were male. Median scene time was 16.6 min (IQR 12–26) and median pre-hospital time was 53.0 min (IQR 38–66). Intravenous fluid resuscitation was given in 54.5% of cases. The mechanism of injury was stabbing in 91.1% and gunshot wound in 8.9%. Urgent surgery was required in 72.3% of cases, 32.7% of patients were admitted to the intensive care unit and there were eight deaths (8.3%).

Conclusion: Penetrating truncal trauma with hypotension is rare in Melbourne, Australia with most patients having the injury caused by stabbing rather than shooting. Compared with outcomes reported in the USA and Europe, the mortality rate is low.

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Some interesting techniques to try, especially if you're unsure of end result and want to avoid resedation.

ULTRASOUND GUIDED REDUCTION OF DISTAL RADIUS FRACTURES

Multiple inadequate reductions under blind manipulation can result in prolonged anesthesia time, increased sedation complication, increased radiation exposure, patient discomfort and additional investment of personnel, time and resource. Using ultrasonography (US) to guide reduction could improve these shortcomings

The rate of repeat manipulation and reduction was reduced in the ultrasound group (1.6% vs 8.8%; $P = .056$). The post-reduction radiographic indices were similar between the 2 groups, although the ultrasound group had improved volar tilt (mean, 5.93° vs 2.61° ; $P = .048$). An incidental finding of a reduced operative rate was also found between the ultrasound and control groups (4.9% vs 16.7%; $P = .02$).

Serratus anterior nerve blocks for rib fractures

It turns out that for rib fractures, the procedure can be simplified even more down to just simply injecting a large deposit of local anesthetic over the ribs between the intercostal muscle and the serratus anterior muscle. As patients breathe, the local is distributed widely for a block centered at T3-T8.

Airway Audit

Still ongoing. Very poor compliance during the COVID period. The computer that has the Excel form in the one facing Resus 2 to the right of the NUM computer. Please print the sheet and place on wooden tray labelled airway registry next to the computer.

Drs. Andrew Casey and Luis Winoto

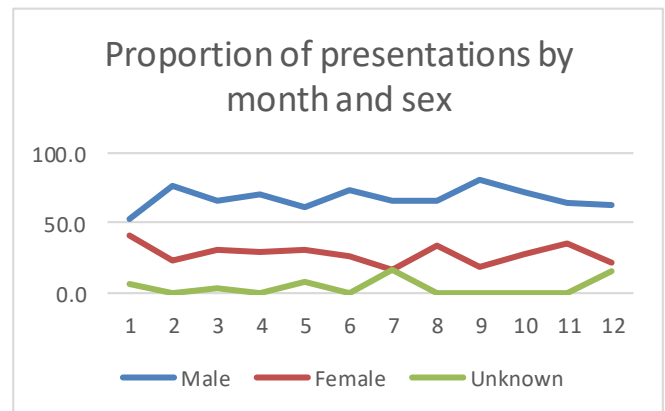
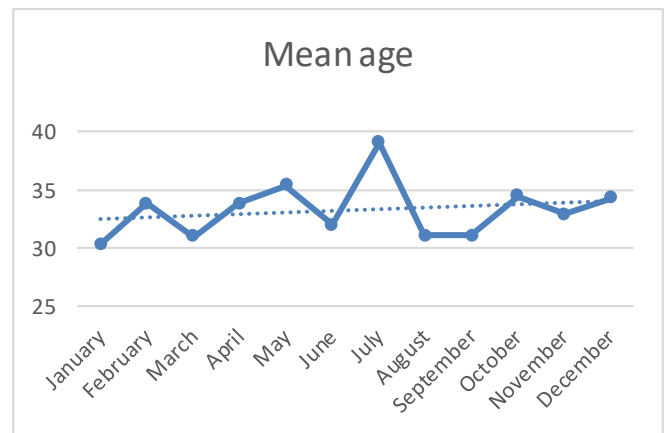
IN THE WORKS

Multicentre approval is completed for a Short Study on Gamma Hydroxybutyrate overdose in Inner Sydney Emergency Departments: a retrospective review.

St. Vincent's Hospital, RAPH and POWH are all involved. Demographics and characteristics of GHB presentations into our Emergency Department. Secondary objective of looking at the airway management of those with GHB

intoxication. Comparing the numbers of those with definitive airways vs those conservatively managed.

Some preliminary data graphs shown below



PO antibiotic prospective study

Effectiveness of oral antibiotics for simple cellulitis in an outpatient setting (Farzad Jazayeri)

Restrospective audit of the number of cases in which medical screening changed the course of psychiatric presentations in the Emergency Department (Farzad Jazayeri, Luis Winoto, Brian Lesmana)

The purpose of the medical screening is to identify medical conditions that might be causing or contributing to the psychiatric emergency or that might be dangerous or inappropriate to treat in a psychiatric facility. Appropriate treatment in the ED is essential to avoid morbidity and mortality resulting from misdiagnosis of medical conditions as psychiatric illnesses and from mismanagement of psychiatric illnesses.

DAD JOKES

Q. I'm reading a book on the history of glue.

A. I just can't seem to put it down.

Q. What did the ocean say to the sailboat?

A. Nothing, it just waved.

Q. I hate jokes about German sausages.

A. They're the wurst

