

ABSTRACT SUBMISSION AIC 2016: #35

1. Title:

Effects of an implementation intervention for brain injury management: A cluster RCT.

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3. Key words:

Cluster Randomized Trial – mild Traumatic Brain Injury – Australian Emergency Departments – Targeted, theory-informed implementation intervention

4. Abstract text:

a. Background and aims

Evidence-based guidelines for the management of adult patients with head injuries recommend screening for post-traumatic amnesia, appropriate CT scanning and the provision of written patient information. In a large-scale implementation trial, we tested the effectiveness of an intervention to increase the uptake of these practices in Australian emergency departments (EDs).

b. Methods

EDs (clusters) were allocated using minimisation to either access to an evidence-based guideline (control) or a targeted and theory-informed implementation intervention involving a local stakeholder meeting, identification and training of opinion leaders, and standardized, interactive education over a three month period. We measured clinical practice outcomes at patient level (in adults, 18 or older) using chart audit, performed by researchers who were blinded to group allocation. Proxy measures of clinical practice, factors predicting clinical practice, and patient health outcomes were also collected.

c. Results

17 EDs were randomised to the control and 14 to the intervention. Patients attending intervention EDs (n = 893) compared with control EDs (n = 1050) were more likely to have been appropriately assessed for post-traumatic amnesia (primary outcome; adjusted OR = 20.1; 95% CI: 6.8–59.3, P < 0.001). The odds of compliance with recommendations for CT scanning and provision of written patient discharge information were not statistically significantly different between groups.

d. Conclusion

The intervention resulted in improved screening for post-traumatic amnesia; however, the difference did not meet our predefined clinically important difference. Implications for practice and factors that may influence intervention effects will be discussed.