

Paramedic - Evidence Based Medicine (P-EBP) Program

Paramedic CAT (Critically Appraised Topic) Worksheet

Title: Is the Kendrick Extrication Device making a difference in patient outcome ?

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Clinical Scenario:

Paramedics are asked to respond to the emergency doors of the local regional hospital for a 45 year old male who had a tree fall on him and cannot get out of the passenger side of a vehicle. They arrive to find an alert male sitting in the passenger side of a mid size car who states a tree fell and hit him on his head , neck and shoulders. The man is complaining of pain in his neck from the occipital region to around c-7 mid spine. He says his neck hurts to much to get out of the car .The paramedics take cervical spine precautions with a cervical collar and a long board gently removing the man from the car onto a hospital bed. The KED is sitting under the bench seat unutilized. Could they have considered this device here?

PICO (Population - Intervention - Comparison - Outcome)

In patients with a suspected cervical spine injury require vehicle extrication, does the Kendrick Extrication Device versus long board or a c-collar result in increased pt comfort and safety.

Search strategy:

(Paramedic or prehospital or out of hospital) AND (cervical spine injury or spinal injury) AND (immobilization or "kendrick extrication device")

Search outcome : 22 results

Relevant Papers: 1

Author, Date	Population: Sample characteristics	Design (LOE)	Outcomes	Results	strengths/ Weaknesses
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J. Shafer 2009	3adults extricated from a mock motor vehicle collision	Quantitative data with measuremen t equipment and a controlled study group LOE 3	Spinal movement in persons exiting vehicle with c-collar with no c-spine control vs c- spine control	C-spinal movement is reduced in pts with c-collar that exit the vehicle themselves [mean change 1.4 ± 4.0 deg] VS cervical collar and KED [mean change 2.0 ± 2.3 deg]	+ The methods use to take measurements were state of the art at the time . - only 3 subjects used - the same subject was used in each extrication - subjects had no pain that could alter the way then exited the vehicle
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Comments:

- There is very little to no current research on the Kendrick Extrication Device and its effectiveness.

-The use of a KED is at the paramedics discretion

-Only one clinical application for the use of the KED is valid in this study

Consider: *Why would you NOT change practice, based on this article?*

In reference to whether the KED makes a difference in extrication, the current research data is not enough to come to an ultimate decision. The data collection in this case was a pilot study and not meant to change current practice . Not enough subjects were used , the subjects that were used had a knowledge of the anatomy in question and did not have any pain at the time which could greatly alter the outcome of the research.

Clinical Bottom Line:

There is not enough research to give credit or discredit the use of the KED

References:



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CAT Worksheet



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Jeffery S. Shafer, MD, EMTP and Rosanne S. Naunheim, MD. Cervical Spine

Motion During Extrication: A Pilot Study. West J Emerg Med, 2009; 10(2):
74-78.