

# Paramedic – Evidence Based Medicine (P-EBP) Program

## Paramedic CAT (Critically Appraised Topic) Worksheet

Title: Prehospital Power Cots

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Clinical Scenario: Paramedics in the same working area, half are given power stretchers and the other mechanical stretchers. The power stretcher is intended to lower work related injuries.

PICO (Population – Intervention – Comparison – Outcome) Question:  
Do paramedics using power stretchers compared to mechanical stretchers have an effect on prolonged careers.

Search Strategy: (prehospital ) AND ( mechanical stretchers OR power stretchers ) and (prolonged careers OR longer careers ) Limit : Last 10 years.

Search Outcome: 4 results

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## Relevant Papers:

AUTHOR, DATE	POPULATION: SAMPLE CHARACTERISTICS	DESIGN (LOE)	OUTCOMES	RESULTS	STRENGTHS/WEAKNESS
Fredricks 2009	Large American EMS service. Data from a 4 year period.	Retrospective Comparison LOE 2	1* claims 2* lost/restricted days	41% lower claims post installation  63-70% decrease post installation	+ randomized allocation + only lifting claims monitored -different types of power devices - costly study -small sample

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## Comments:

- all paramedics have different lifting techniques
- all paramedics have different methods for lifting
- past injuries and medical history not studied
- more claim related vs. prolonged career

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

*In reference to the initial question of paramedics having a prolonged career using a power vs mechanical stretcher, With the low results of my study I cannot base changing practise related to this alone. However, the study showed that using powered gurney lowered the amount of work claims 41% .  
Due to the cost of the study, there is currently not many services studying or using all powered stretchers.*

**Clinical Bottom Line:** Although, the study shown proves that an using power gurneys have a decreased amount of claims this topic still hasn't been researched enough. The cost is too high to change power instead of mechanical stretchers for day to day use.

## References:

Butt, S. E Fredricks, T.k Choi. (2009). The Impact of Gurney Design on EMS Personell. Biomechanics xvi, annual international occupational emergencies.: Occupational Ergonomics and Safety Conference.