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# Early Mobilization for Trauma Patients

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## Background/Problem

Trauma patients are often admitted with multiple injuries requiring a long rehabilitation process. Many patients are not mobilized for an extended period of time due to the severity of their injuries. This may result in complications such as hospital acquired weakness, increased length of stay, as well as pulmonary, cardiovascular and musculoskeletal deconditioning. Developing an early mobilization protocol could lead to a decrease in hospital stay and complications related to prolonged immobility.

## PICOT

**P-** Adult trauma patients

**I-** Early mobilization

**C-** Routine or delayed mobilization

**O-** Decrease length of stay and complications related to immobility

**T-** During their hospitalization

## Practice Question

Does early mobilization for adult trauma patients compared to routine or delayed mobilization decrease their hospital length of stay and complications from prolonged immobility?

## Evidence Summary:

### (Engles et al. 2013; Higgins et al. 2019)- Level 1A

-Early mobilization induces rapid capillary ingrowth and myofibril orientation allowing quicker return of muscle function

-Immobilization can lead to diminished aerobic capacity, muscle atrophy and loss of bone strength.

-Due to polytrauma in many patients, an agreed upon protocol from a multidisciplinary team provides the greatest benefits.

-Patients receiving early mobilization had a decrease length of stay.

-Mobilization should be viewed as medical treatment taking account of the quantity, frequency, duration and timeliness of the first administration.

- Passive ROM can be used for unconscious patients and advance them to active ROM once they are more interactive.

### (Drolet et al. 2013)- Level 3A

- Patients who were not ambulated became deconditioned leading to cancellation of discharge or transfer to rehabilitation facilities.

-6.2% of ICU and 15.5% of IMCU patients were ambulated within 72 hours of admission, after implementation of Move to Improve Project, 20.2% of ICU and 71.8% of IMCU patients were ambulated within 72 hours of admission

### (Clark et al. 2013)- Level 3B

-Prolonged immobility can result in joint mobility restrictions, muscle weakness, and pressure ulcers leading to increased length of stay.

-Early mobility protocol should consider the patient's medical stability, cognitive ability as well as motor status.

-Patients who received early mobility reduced length of stay by 2.4 days.

### (Coles et al. 2020)- Level 3C

-Patients on the early mobility program were found to have a significant decrease in DVTs.

-Early mobility demonstrated shorter duration of delirium and greater return to independent functional status at discharge.

### (Saunders 2015)- Level 5B

-Immobility in trauma patients leads to high risk of complications including musculoskeletal, pulmonary, and cardiovascular.

-Bedrest in a healthy individual has shown to have a 1-1.5% loss of quadriceps muscle strength loss for each day of immobility.

## Recommendations for Change Based on Evidence Synthesis:

An early mobilization protocol should be developed with recommendations from the multidisciplinary team along with appropriate activities and goals with each activity over the course of the patients' hospital stay.

## Translation of Evidence into Practice

Present findings of project to multidisciplinary team and identify key stakeholders such as Nursing, PT/OT, Trauma, Neurosurgery/Neuro Critical Care, Orthopedics, Pain management and Respiratory who would then develop an early mobilization protocol for trauma patients.

The protocol would have inclusion and exclusion criteria for patients appropriate to mobilize out of bed and those who would have mobilization/passive ROM in bed.

## Evaluation of Practice Change/Outcomes:

Trauma patients will be evaluated on their mobility level at discharge compared to their pre-hospital baseline.

The healthcare team will also monitor the frequency of any complications after implementation of the early mobilization protocol.

And lastly the healthcare team will monitor the trauma patients' length of hospital stay.



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## Database Search Strategy

CINHL, Pubmed, Cochrane,  
Ebscohost

## Keywords

Trauma patients, trauma, early mobilization, early ambulation, early mobility, mobility, mobilize, ambulate, critical care

