The Role of Physical Therapy in the Treatment and Discharge of an Elderly Homeless Patient with Fractures of the T12-L1 Vertebrae: A Case Report.

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Homelessness in America

- More than 600,000 are homeless in the USA[1]
- Homeless people have higher rates of premature mortality than the rest of the population, especially from unintentional injuries, and have an increased prevalence of mental disorders[1 4]
- Hospitals often encounter difficulty with discharge when homeless patients are medically stable enough to be transferred to a lower level of care[2]
- Hospitals risk potential legal action and poor portrayal by the media if a homeless patient claims he/she was discharged improperly[3]

Case Description

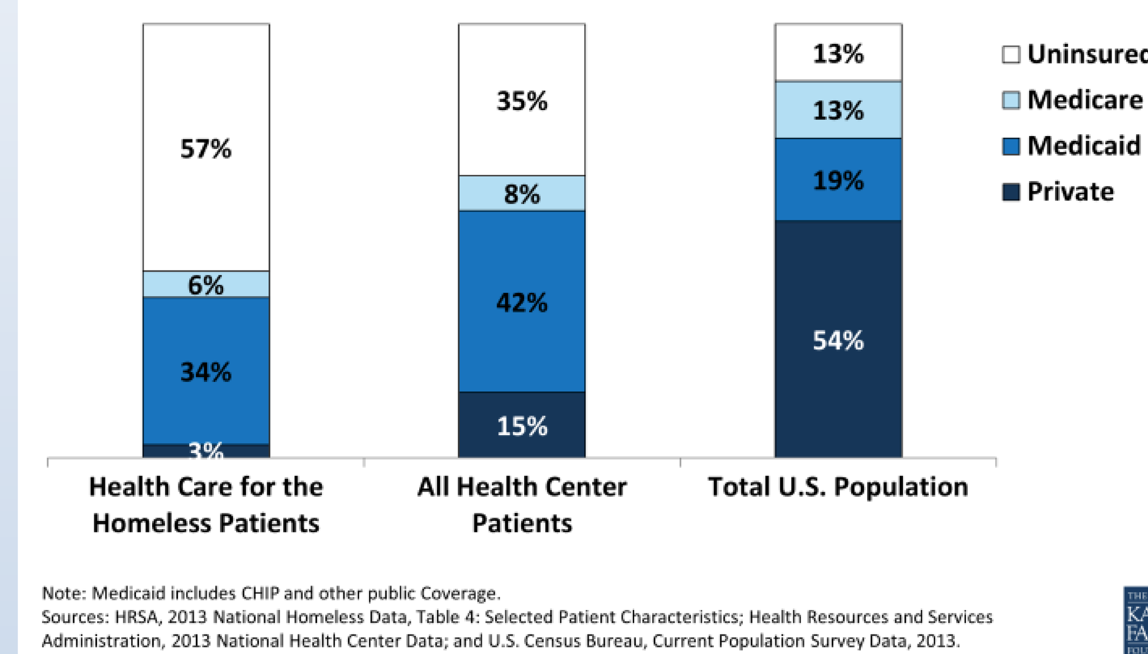
- 77 year old homeless male living out of his car
- Sustained compression fractures to T12 & L1 vertebrae after falling from 4 foot height
- Presented with head wound consistent with history of fall - no protective wounds on hands or arms - no evidence of attempt to protect self
- Non-surgical treatment using Thoracic Lumbar Sacral Orthotic
- Deficient range of motion in bilateral lower extremities limited by pain; good strength & coordination throughout upper & lower extremities
- High fall risk (Tinetti Balance and Gait Assessment)
- Scored within normal cognitive functioning (Montreal Cognitive Assessment)
- Pain at rest: 6/10
  Pain with activity 8/10

Interventions

- Constant coordination with hospital Case Management was required to ensure acceptance to inpatient facility
- Physical Therapy recommended to Case Management that the patient be discharged to inpatient rehab on the grounds that he could not maintain spinal precautions while living out of his car

Outcome

Tests & Measures	Initial Results	Final Results
Tinetti Balance and Gait Assessment	Balance score: 8/16, Gait score: 6/12, Total: 14/28, indicates high fall risk	Balance score: 14/16, Gait score: 10/12, Total: 24/28, indicates low fall risk
Visual Analogue Scale (VAS) Pain Level	At rest: 6/10 With activity: 8/10	At rest: 4/10 With activity: 6/10
Montreal Cognitive Assessment (MoCA)	26/30, indicates normal cognitive function	Not assessed



Interventions	Treatment Day 1	Treatment Day 2	Treatment Day 3
Intervention 1 Patient Education	Educated patient on brace management, spinal precautions, hospital safety protocols, use of rolling walker	Utilized teach-back of education from Treatment Day 1 to ensure patient comprehension and retention	Utilized teach-back of education from Treatment Day 1 to ensure patient comprehension and retention [5]
Intervention 2 Durable Medical Equipment	Provided patient with TLSO, assisted patient with application and removal, performed skin inspection	Assisted patient with application and removal, performed skin inspection	Assisted patient with application and removal, performed skin inspection
Intervention 3 Functional Mobility	Instructed patient in general bed mobility, instructed patient in transfers, ambulated patient with rolling walker 40 ft x 2	Ambulated with patient using rolling walker 100 ft x 4	Ambulated with patient using rolling walker 100 ft x 6
Intervention 4 Therapeutic Exercise	In supine: heel slides, straight leg raises, ankle pumps: 10 reps x 3 sets each.	At edge of bed: sitting marches, long arc quads, heel raises: 10 reps x 3 sets. In supine: passive glute/hamstring stretches: 3 sets x 30”	In standing with rolling walker: marches, mini squats, hip abd, heel raises: 10 reps x 4 sets. In supine: self-stretch of glute/hamstring using bed sheet: 3 sets x 30”

Discussion

- The patient was effectively and efficiently medically stabilized
- After medical stabilization at the hospital, the patient was discharged to an inpatient rehab facility for further recovery
- Finding inpatient rehab facilities willing to accept homeless patients is difficult due to disparities in health insurance coverage
- Case Management encountered difficulties finding an inpatient facility that would accept the patient – required constant updates/notes and meticulous justification from Physical Therapy
- Physical Therapy and Case Management worked together to help the patient reach the conclusion that inpatient rehab was the best choice for him

References

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