

Short Term Outcomes in Spinal Cord Injury Based Upon Payor in West Virginia

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Introduction

Introduction: Public insurance has been linked to worse outcomes in a variety of diagnoses such as lung cancer, uterine cancer, and cardiac valve procedures. It has furthermore been linked to reduced health-related quality of life outcomes after traumatic injuries when compared to other insurance groups. In spinal cord injury (SCI), the care provided in the subacute setting may vary based upon payor status, which may have implications on outcomes and cost of care.

Methods

Methods: A retrospective review utilizing the institutional trauma databank was performed for all adult patients with spinal cord injury since 2009. Pediatric patients were excluded. Insurance type, length of stay, discharge status (alive/dead), discharge disposition, injury severity score (ISS), and hospital charges billed were recorded.

Results

Results: 200 patients were identified. Overall 27.5% of patients with SCI during the period of our review were Medicaid beneficiaries. ISS was similar between Medicaid and non-Medicaid patients, but the Medicaid beneficiaries were younger (37 vs 50 years of age; $P < 0.001$). Medicaid beneficiaries had significantly longer length of stay (20.9 days; $P < 0.001$) when compared to all other patients. They furthermore were more likely to be discharged home or to a skilled nursing facility. Inpatient charges billed for Medicaid beneficiaries were significantly higher than those of non-Medicaid patients (203,264 USD vs 140,114 USD; $P = 0.015$), likely reflecting the increased length of stay while awaiting

Table 1. Payor Distribution

Payor	Number of Patients	% of Patients
Medicaid	58	29%
Automotive	12	6%
Commercial	54	27%
Medicare	44	22%
Workman's Compensation	15	7.5%
Self-pay	6	3%
Other State	11	5.5%

Note. N=200

Table 2. Characteristics of Medicaid and Non-Medicaid Patients

Characteristic	Medicaid	Non-Medicaid	P value
Mean age	37	50	<0.01
ISS	22	23	0.75
Mortality	3 of 58	14 of 142	0.4
Length of Stay	20.9 days	9.6 days	<0.01
Charges Billed	\$203,264	\$140,114	0.02
Disposition to Rehab. Center	15 of 58	69 of 142	<0.01

Conclusions

Conclusions: Medicaid patients with SCI in West Virginia had longer hospital stay, higher charges billed, and were more likely to be discharged home or to a skilled nursing facility rather than an acute rehabilitation center, when compared to non-Medicaid patients. The lack of availability of rehabilitation facilities which accept Medicaid beneficiaries likely explains this difference.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) identify how payor mix affects short term outcomes such as length of stay and discharge disposition.

References

1. Slatore, C.G., Au, D.H., Gould, M.K. (2010) American Thoracic Society Disparities in Healthcare Group. An official American thoracic society systematic review: insurance status and disparities in lung cancer practices and outcomes. *Am J Respir Crit Care Med*, 182, p. 1195
2. Fedewa, S.A., Lerro, C., Chase, D., Ward, E.M. (2011) Insurance status and racial differences in uterine cancer survival: a study of patients in the national cancer database. *Gynecol Oncol*, 122, p. 63
3. Lapar, D.J., Bhamidipati, C.M., Walters, D.M. et al (2011). Primary payer status affects outcomes for cardiac valve operations. *J Am Coll Surg*, 212 p. 759
4. Alghnam, S., Schneider, E.B., Castillo, R.C. (2016) Insurance status and health-related quality-of-life disparities after trauma: results from a nationally representative survey in the US. *Quality of Life Research* 25(4)