

No-Fault Motor Vehicle Insurance Reform Impacts Patients with Spinal Cord Injury

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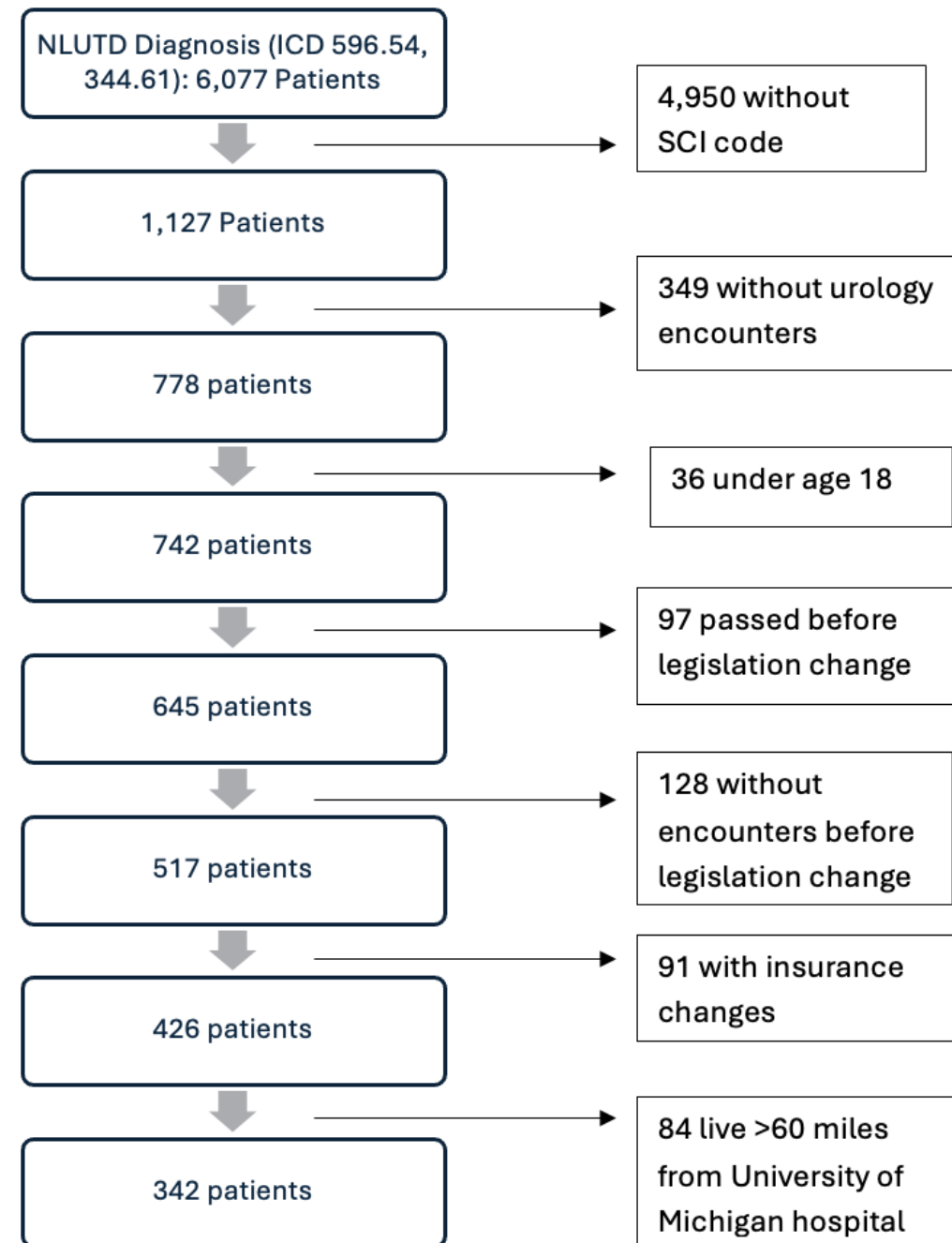
Introduction

Personal Injury Protection (PIP) covers medical expenses and lost wages in the event of a motor vehicle accident (MVA).

PIP requirement was eliminated in Michigan on July 1, 2020, with passing of “no-fault” automotive bipartisan reform aiming to reduce consumer auto insurance costs.

Objective: Determine whether Michigan PIP reform was associated with changes in hospitalization and emergency room utilization for patients with spinal cord injury (SCI) and neurogenic lower urinary tract dysfunction (NLUTD).

Methods



Primary Outcomes: Frequency of hospitalizations and emergency room visits.

Secondary Outcomes: Frequency of urology visits and measures of urologic surveillance (ie: renal function lab testing, upper tract imaging)

Results

Primary Outcomes Before and After Michigan Automobile PIP Reform

Outcomes	PIP	Other*	p-value
	N=121	N=221	
Average ER visits per 100 patients/year, mean (SD)			0.2
Pre-	30.2 (67.8)	23.3 (58.3)	
Post-	33.1 (70.0)	36.7 (91.8)	
Change	2.9 (69.6)	13.3 (85.8)	
Change (%)	9.6%	57%	
Average Hospitalizations per 100 patients/year, mean (SD)			0.043
Pre-	52.5 (109.5)	53.8 (110.6)	
Post-	33.9 (74.8)	81.4 (194.9)	
Change	-18.6 (104.5)	27.6 (173.9)	
Change (%)	-35%	51%	

Secondary Outcomes Before and After Michigan Automobile PIP Reform

Outcomes	PIP	Other*	p-value
	N=121	N=221	
Average labs per year, mean (SD)			0.3
Pre-	3.0 (4.8)	3.1 (5.3)	
Post-	2.7 (4.6)	4.1 (8.0)	
Change	-0.3 (5.0)	1.0 (7.5)	
Change (%)	-10%	32%	
Average imaging per 100 patients/year, mean (SD)			0.2
Pre-	12.7 (41.4)	20.8 (54.8)	
Post-	15.4 (58.5)	21.6 (72. ^)	
Change	2.4 (48.0)	0.8 (61.5)	
Change (%)	22%	3.8%	
Average Urology Visits per year, mean (SD)			0.6
Pre-	1.3 (1.3)	1.4 (1.8)	
Post-	1.6 (1.9)	1.9 (2.7)	
Change	0.24 (1.8)	0.42 (2.6)	
Change (%)	18%	30%	

*Other = All non-PIP primary insurers

Results

- 342 patients
 - 35% (n=121) in PIP group
 - 65% (n=221) in Other group
- No statistically significant demographic differences
- No statistically significant difference in ER visits and urologic surveillance
- ↓ Hospitalizations decreased by 35% in PIP group
- ↑ Hospitalizations increased by 51% in Other insurance group (p=0.043)

Conclusion

SCI and NLUTD patients who retained PIP coverage experienced lower rates of hospitalization than those other primary insurers.

The ability to maintain PIP coverage may provide access to resources that protect against the needs for hospitalization.

This study further highlights the potential impact that non-urological legislative reform may have on healthcare utilization in the urologic patient.