

Factors influencing time to claim closure in older versus young road traffic injury claimants

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Abstract

Prolonged claim closure following road traffic injury is associated with adverse outcomes [1], yet has not been investigated in older people, despite Australia's ageing population and increasing life expectancy.

NSW compensation data was analysed using logistic regression to identify predictors of late claim closure (>24 months) in older (≥ 65 years) versus younger (17-64 years) people. Legal representation was the dominant predictor for both age groups after adjusting for other variables, although the odds were higher for younger people. Qualitative studies are recommended to identify older people's underlying reasons for earlier closure, the influence of legal representation and impact on recovery.

Background

Older people's hospitalisation rates for motor vehicle occupant injuries are second highest of any age group, and pedestrian injuries are the highest of any age group (Australian Institute of Health and Welfare, 2015). Older people have poorer RTI outcomes compared to younger people, including increased injury severity (Bauza, Lamorte, Burke, & Hirsch, 2008) (Newgard, 2008) and mortality (Bauza et al., 2008), and a greater proportion of head and chest injuries (Bauza et al., 2008) (Newgard, 2008). Older people with mild to moderate RTI may suffer poorer long-term physical functioning and general health (Gopinath et al., 2015). Australia has an ageing population and increasing life expectancy (Australian Institute of Health and Welfare, 2018). Older Australians make valuable contributions to society via paid and unpaid work. It is therefore important to understand the impact of RTI on older people.

Late RTI claim closure (>24 months) can be a marker for prolonged recovery, and has been associated with long-term conditions such as whiplash and chronic musculoskeletal pain (Gopinath, Jagnoor, Elbers, & Cameron, 2017), and also with lawyer involvement (Gopinath et al., 2016). Reducing the time taken to resolve a claim is a key objective of the 2016 NSW Motor Accidents CTP Scheme review 2016 (State Insurance Regulatory Authority, 2017). This study analyses NSW Personal Injury Register (PIR) compensation data to identify key predictors of late claim closure in older versus younger people.

Methods

NSW CTP data (NSW Motor Accidents Authority, 2015) on finalised claims for RTI's between July 2010-June 2013 was analysed. The main outcome was time to claim closure (early ≤ 24 months; late > 24 months) (Gopinath et al., 2016). Binary logistic regression was undertaken to identify key predictors of late claim closure in older versus younger people. Results were reported in accordance with the RECORD checklist (Benchimol EI, 2015). Ethical approval was obtained prior to undertaking the study.

Results

A total of 19,186 claimants met the inclusion criteria. Of these, 2137 (11%) were older, and 954 (45%) had late claim closure, compared to 8874 (52%) younger people. Mean time to claim closure was 24 months (SD 13) and 27 months (SD 15) for older and younger people respectively.

In older people, after adjusting for other variables, late claim closure was associated with younger age (OR 0.81, 95% CI 0.75-0.88), higher injury severity (NISS \geq 9) (OR 1.76, 95% CI 1.37-2.26), whiplash (OR 1.41, 95% CI 1.13-1.75) and legal representation (OR 4.25, 95% CI 3.38-5.35).

In younger people, after adjusting for other variables, late claim closure was associated with increasing age (OR 1.03, 95% CI 1.02-1.04), female sex (male OR 0.91, 95% CI 0.84-0.97), regional/remote crashes (OR 1.23, 95% CI 1.11-1.37), being a vehicle occupant (OR 1.0) versus cyclist (OR 0.72, 95% CI 0.60-0.86), attending hospital (OR 1.84, 95% CI 1.13-1.33), NISS \geq 9, (OR 1.84, 95% CI 1.65-2.05), head injury (OR 1.42, 95% CI 1.22-1.65), whiplash (OR 1.19, 95% CI 1.10-1.46), lower limb fracture (OR 1.27, 95% CI 1.10-1.46) and legal representation (OR 7.75, 95% CI 7.10-8.45).

Conclusion

After adjusting for other variables, legal representation was the dominant factor in late claim closure for both older (4 times higher odds) and younger (8 times higher odds) people. Qualitative studies are recommended to explore earlier claim closure in older people: the underlying reasons, influence of legal representation, and impact on recovery.

Table 1. Multivariate analysis, time to claim closure >24 months, older versus younger road traffic injury claimants

	17-64 years		65+ years	
	OR (95% CI)	P	OR (95% CI)	P
Age (per 5 years)	1.03 (1.02-1.04)	<0.01	0.81 (0.75-0.88)	<0.01
Sex				
Female	1.0 (ref)	-	1.0 (ref)	-
Male	0.91 (0.84-0.97)	<0.01	0.99 (0.82-1.19)	0.891
Crash remoteness (ARIA)				
Major cities (ref)	1.0 (ref)		1.0 (ref)	
Regional / remote	1.23 (1.11-1.37)	<0.01	0.96 (0.75-1.23)	0.731
Role in crash				
Vehicle occupant (ref)	1.0 (ref)	<0.01	1.0 (ref)	0.369
Cyclist	0.72 (0.60-0.86)	<0.01	1.37 (0.73-2.56)	0.326
Treated at hospital				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	1.22 (1.13-1.33)	<0.01	1.24 (1.00-1.54)	0.051
NISS >=9				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	1.84 (1.65-2.05)	<0.01	1.76 (1.37-2.26)	<0.01
Head injury				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	1.42 (1.22-1.65)	<0.01	1.23 (0.90-1.67)	0.190
Whiplash				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	1.19 (1.10-1.30)	<0.01	1.41 (1.13-1.75)	<0.01
Lower limb fracture				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	1.27 (1.10-1.46)	<0.01	1.25 (0.93-1.68)	0.137
Legal representation				
No (ref)	1.0 (ref)	-	1.0 (ref)	-
Yes	7.75 (7.10-8.45)	<0.01	4.25 (3.38-5.35)	<0.01
Constant	0.14 (-)	<0.01	3.63 (-)	0.031

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