

Intoxicated pedestrians

John CROZIER Vascular & Trauma Surgeon

Liverpool Hospital RACS 13NOV19







Ethanol is







Shop online, collect in-store for free



Drinks delivered when you need it

Delivery at a time that suits you







Scope

- Liverpool Hospital pedestrian trauma
- Australian inebriated pedestrian data
- inebriated pedestrian fatalities
- recommendations

Liverpool Hospital Pedestrian Trauma

Year	Total	Deaths	Male	Female
2013	106	3	46	60
2014	88	2	44	44
2015	88	8	30	58
2016	85	6	36	49
2017	114	6	46	68
2018	96	7	37	59
2019 H1	50	1	21	29

Patient age group

Age group	Number
<9	33
10 – 19	96
20 – 29	75
30 – 39	58
40 – 49	49
50 – 59	74
60 - 69	86
> 70	156
Total	627

Arrival in ED by day of week

Day	Number
Monday	99
Tuesday	106
Wednesday	90
Thursday	103
Friday	87
Saturday	79
Sunday	63
Total	627

Arrival in ED by hour

Hour	Number
00:00 – 07:59	69
08:00 – 15:59	267
16:00 – 23:59	291
Total	627

Alcohol suspected

Year	Total	Alcohol suspected
2013	106	
2014	88	
2015	88	
2016	85	
2017	114	
2018	96	
2019 H1	50	

Alcohol suspected

Year	Total	Alcohol suspected	
2013	106	6	
2014	88	3	
2015	88	4	
2016	85	1	
2017	114	6	
2018	96	3	
2019 H1	50	1	

Alcohol suspected

Year	Total	Alcohol suspected	
2013	106	6	Note: Blood alcohol
2014	88	3	data is not accurate
2015	88	4	it is captured only for
2016	85	1	Major patients that had
2017	114	6	ISS>12
2018	96	3	
2019 H1	50	1	and only if available

Alcohol intoxication in non-motorised road trauma



TRAUMA

Alcohol intoxication in non-motorised road trauma

Biswadev MITRA,^{1,2,3} Kate E CHARTERS,^{1,2} John C SPENCER,¹ Mark C FITZGERALD^{1,2,3} and Peter A CAMERON^{1,2,3}

¹Emergency and Trauma Centre, The Alfred Hospital, Melbourne, Victoria, Australia, ²Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Victoria, Australia, and ³National Trauma Research Institute, The Alfred Hospital, Melbourne, Victoria, Australia

Mode of transport	Intoxicated BAL >0.05 g/100ml	Not intoxicated	Р
	(n=211)	(n=1112)	
Pedestrian	161 (76.3%)	490 (44.1%)	<.01
Pedal cyclist	47 (22.3%)	597 (53.7%)	<.01
Scooter	3 (1.4%)	14 (1.2%)	
Skateboard	0	6 (0.5%)	
Age	33.9 (12.7%)	46.6 (19.2%)	
Male	179 (84.8%)	751 (67.5%)	<.01
Weekend	69 (32.7%)	326 (29.3%)	
After hrs	185 (87.7%)	338 (30.4%)	<.01

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Key findings

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- alcohol intoxication common among Victorian non-motorised road users
- 1 in 4 pedestrians and
- 1 in 10 bicyclists with serious injuries presenting to a major trauma centre were intoxicated
- trauma burden from alcohol intoxication likely to be grossly under-estimated

Ethanol in pedestrian fatalities from traffic crashes

- study population: 313 fatalities 208 men (66.45%)
- age 3 91 years, average age 68.5 (sd12.7) years
- most often, struck by motor vehicle aged 45 64 (36.10%)
- alcohol in 162 of the victims (51.76%)
- majority -276 pedestrians struck -multiple injuries (88.18%)
- death at crash site 211(67.41%)
- mechanism involved was car 212 (67.73%)



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Alcohol outlets, pedestrian injury risk

- **Background:** Alcohol outlet density has been associated with increased pedestrian injury risk. It is unclear whether this is because alcohol outlets are located in dense retail areas with heavy pedestrian traffic or whether alcohol outlets contribute a unique neighborhood risk.
- aimed to compare the pedestrian injury rate around alcohol outlets to the rate around other, similar retail outlets that do not sell alcohol.
- Methods: A spatial analysis was conducted on census block groups in Baltimore City. Data included pedestrian injury EMS records from January 1, 2014, to April 15, 2015 (n=848); locations of alcohol outlets licensed for off-premise (n=726) and on-premise consumption (n=531); and corner (n=398) and convenience stores (n=192) that do not sell alcohol. Negative binomial regression was used to determine the relationship between retail outlet count and pedestrian injuries, controlling for key confounding variables. Spatial autocorrelation was also assessed and variable selection adjusted accordingly.
- Results: Each additional off-premise alcohol outlet was associated with a 12.3% increase in the rate of neighborhood pedestrian injury when controlling for convenience and corner stores and other confounders (IRR=1.123, 95%CI=(1.065, 1.184), p<0.001). The attributable risk was 4.9% (95% CI=(0.3%,8.9%)) or 41 additional injuries. On-premise alcohol outlets were not significant predictors of neighborhood pedestrian injury rate in multivariable models (IRR=0.972, 95%CI=(0.940, 1.004), p=0.194).
- **Conclusion:** Off-premise alcohol outlets are associated with pedestrian injury rate, even when controlling for other types of retail outlets. Findings reinforce the importance of alcohol outlets in understanding neighborhood pedestrian injury risk and may provide evidence for informing policy on liquor store licensing, zoning, and enforcement

Alcohol Clin Exp Res. 2018 October ; 42(10): 1979-1987. doi:10.1111/acer.13844.

Alcohol Outlets, Neighborhood Retail Environments, and Pedestrian Injury Risk

Elizabeth D. Nesoff, PhD, MPH^{1,*}, Adam J. Milam, MD, PhD, MHS², Charles C. Branas, PhD¹, Silvis S. Martins, MD, PhD¹, Amy R. Knowiton, ScD³, and Debra M. Furr-Holden, PhD⁴ ¹Columbia University Maliman School of Public Health; Department of Epidemiology; 722 W168th S.; 5th floor; New York, NY 10032, USA

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Key pedestrian trauma messages

- mechanism pedestrian vs?
- geospatial location of injury
- alcohol frequently not considered

Key pedestrian trauma messages

- alcohol frequently not considered
 - has alcohol been consumed in the 6 hr prior
 - how much ?
 - when did you start ? stop ?
 - where did you last consume?
- blood alcohol

NEVER LETA NATE WALK HONE DRUNK

