

Supplementary Material

Factors associated with emergency department service outcomes for people with a mental health problem brought in by police: a retrospective cohort study

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Supplementary Material: Tables

Table S1: Bayesian information criterion (BIC) values for models for ED length of stay ≥ 4 hours and hospital admission for people with a mental health problem brought in by police.

Number of variables	BIC	Factors				
<i>ED length of stay ≥4 hours</i>						
1	63,120.89	Episode end status				
2	62,548.67	Episode end status	Triage category			
3	61,872.25	Episode end status	Triage category	Shift of arrival		
4	61,823.59	Episode end status	Triage category	Shift of arrival	Age	
<i>Hospital admission</i>						
1	65,729.91	ED length of stay ≥4 hours				
2	65,367.22	ED length of stay ≥4 hours	Triage category			
3	64,915.64	ED length of stay ≥4 hours	Triage category	Age		
4	64,687.78	ED length of stay ≥4 hours	Triage category	Age	Shift of arrival	
5	64,667.44	ED length of stay ≥4 hours	Triage category	Age	Shift of arrival	Sex

BIC, Bayesian information criterion; ED, emergency department.

Table S2: Univariable sensitivity analysis for factors associated with an ED length of stay ≥ 4 hours for people with a mental health problem brought in by police.

Factors	Univariable logistic regression [†]		Univariable logistic regression [‡]	
	Crude odds ratio (95% CI)	P-value	Crude odds ratio (95% CI)	P-value
Age				
18–24 years	(ref)	–	(ref)	–
25–34 years	1.1 (1.1–1.2)	<0.001	1.1 (1.1–1.2)	<0.001
35–44 years	1.2 (1.2–1.3)	<0.001	1.2 (1.2–1.3)	<0.001
45–54 years	1.3 (1.2–1.4)	<0.001	1.3 (1.2–1.4)	<0.001
55–64 years	1.3 (1.2–1.4)	<0.001	1.3 (1.2–1.4)	<0.001
65–74 years	1.5 (1.3–1.7)	<0.001	1.5 (1.3–1.7)	<0.001
75–84 years	2.0 (1.4–2.7)	<0.001	2.0 (1.4–2.7)	<0.001
85 years and older	2.9 (1.6–5.4)	0.001	2.9 (1.6–5.4)	0.001
Sex				
Male	1.0 (1.0–1.1)	0.194	1.0 (1.0–1.1)	0.201
Female	(ref)	–	(ref)	–
Day of arrival				
Monday	1	–	1	–
Tuesday	0.9 (0.9–1.0)	0.014	0.9 (0.9–1.0)	0.014
Wednesday	0.9 (0.8–1.0)	0.004	0.9 (0.8–1.0)	0.004
Thursday	0.9 (0.8–1.0)	0.002	0.9 (0.8–1.0)	0.002
Friday	0.9 (0.8–0.9)	<0.001	0.9 (0.8–0.9)	<0.001
Saturday	0.9 (0.9–1.0)	0.105	0.9 (0.9–1.0)	0.101
Sunday	1.0 (0.9–1.0)	0.556	1.0 (0.9–1.0)	0.557
Shift of arrival				
Early (07.00–14.59 hours)	(ref)	–	(ref)	–
Evening (15.00–22.59 hours)	1.1 (1.1–1.1)	<0.001	1.1 (1.1–1.1)	<0.001
Night (23.00–06.59 hours)	1.8 (1.7–1.8)	<0.001	1.8 (1.7–1.9)	<0.001
Triage category				
ATS 1 (immediate assessment/treatment)	9.0 (6.8–11.9)	<0.001	8.9 (6.8–11.8)	<0.001
ATS 2 (assessment/treatment within 10 minutes)	4.6 (3.7–5.7)	<0.001	4.6 (3.7–5.6)	<0.001
ATS 3 (assessment/treatment within 30 minutes)	3.6 (2.9–4.4)	<0.001	3.6 (2.9–4.4)	<0.001
ATS 4 (assessment/treatment within 60 minutes)	2.2 (1.8–2.8)	<0.001	2.2 (1.8–2.8)	<0.001
ATS 5 (assessment/treatment within 120 minutes)	(ref)	–	(ref)	–

Episode end status				
Discharged/referred	(ref)	–	(ref)	–
Admitted (to hospital)	2.0 (1.9–2.1)	<0.001	2.0 (1.9–2.1)	<0.001
Left at own risk (after treatment commenced)	1.4 (1.2–1.6)	<0.001	1.4 (1.2–1.6)	<0.001
Did not wait	0.5 (0.3–0.7)	<0.001	0.5 (0.3–0.7)	<0.001
Died in ED	–	–	–	–

ED, emergency department; CI, confidence interval; ATS, Australasian Triage Scale; ref, reference group.

[†]*Analysis based on n=49 325 mental health presentations brought in by police, including all mental health presentations with a mental health problem.*

[‡]*Analysis based on n=49 268 mental health presentations brought in by police, excluding presentations with missing data (equal observations required across all variables to facilitate multivariable analysis as per Bayesian Information Criteria requirements).*

Table S3: Univariable sensitivity analysis for factors associated with hospital admission for people with a mental health problem brought in by police.

Factors	Univariable logistic regression [†]		Univariable logistic regression [‡]	
	Crude odds ratio (95% CI)	P-value	Crude odds ratio (95% CI)	P-value
Age				
18–24 years	(ref)	–	(ref)	–
25–34 years	1.5 (1.4–1.5)	<0.001	1.4 (1.4–1.5)	<0.001
35–44 years	1.6 (1.5–1.7)	<0.001	1.6 (1.5–1.7)	<0.001
45–54 years	1.6 (1.5–1.6)	<0.001	1.5 (1.5–1.6)	<0.001
55–64 years	1.8 (1.7–2.0)	<0.001	1.8 (1.7–2.0)	<0.001
65–74 years	2.7 (2.3–3.1)	<0.001	2.7 (2.3–3.1)	<0.001
75–84 years	3.8 (2.8–5.3)	<0.001	3.8 (2.7–5.2)	<0.001
85 years and older	9.5 (4.2–21.4)	<0.001	9.5 (4.2–21.5)	<0.001
Sex				
Male	1.1 (1.1–1.2)	<0.001	1.1 (1.1–1.2)	<0.001
Female	(ref)	–	(ref)	–
Day of arrival				
Monday	(ref)	–	(ref)	–
Tuesday	1.1 (1.0–1.2)	0.007	1.1 (1.0–1.2)	0.007
Wednesday	1.1 (1.0–1.1)	0.040	1.1 (1.0–1.1)	0.042
Thursday	1.1 (1.1–1.2)	<0.001	1.1 (1.1–1.2)	<0.001
Friday	1.1 (1.0–1.2)	0.004	1.1 (1.0–1.2)	0.004
Saturday	1.0 (0.9–1.0)	0.447	1.0 (0.9–1.0)	0.449
Sunday	0.9 (0.8–0.9)	<0.001	0.9 (0.8–0.9)	<0.001
Shift of arrival				
Early (07.00–14.59 hours)	1.4 (1.3–1.5)	<0.001	1.4 (1.3–1.5)	<0.001
Evening (15.00–22.59 hours)	1.2 (1.2–1.3)	<0.001	1.2 (1.2–1.3)	<0.001
Night (23.00–06.59 hours)	(ref)	–	(ref)	–
Triage category				
ATS 1 (immediate assessment/treatment)	3.5 (2.7–4.5)	<0.001	3.5 (2.8–4.5)	<0.001
ATS 2 (assessment/treatment within 10 minutes)	2.6 (2.2–3.1)	<0.001	2.6 (2.2–3.0)	<0.001
ATS 3 (assessment/treatment within 30 minutes)	1.8 (1.6–2.2)	<0.001	1.8 (1.6–2.2)	<0.001
ATS 4 (assessment/treatment within 60 minutes)	1.4 (1.2–1.6)	<0.001	1.4 (1.2–1.6)	<0.001
ATS 5 (assessment/treatment within 120 minutes)	(ref)	–	(ref)	–
ED length of stay ≥4 hours	2.0 (0.9–2.1)	<0.001	2.0 (1.9–2.1)	<0.001

ED, emergency department; CI, confidence interval; ATS, Australasian Triage Scale; ref, reference group.

[†]Analysis based on n=49 325 mental health presentations brought in by police, including all mental health presentations with a mental health problem

[‡]*Analysis based on n=49 268 mental health presentations brought in by police, excluding presentations with missing data (equal observations required across all variables to facilitate multivariable analysis as per Bayesian Information Criteria requirements).*