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Bottlenecks in the Emergency Department: the psychiatric clinicians' perspective★

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Abstract

Objective—To ask psychiatric clinicians for their perspectives on the rate-limiting steps (RLS) in patient care in the Emergency Department (ED) and to compare them to the patient's actual length of stay.

Method—Prospective cohort study of clinicians' perspectives on the RLS among 1092 adult ED patients. Medical records were abstracted for ED time and other data.

Results—Clinicians identified five RLS: limited availability of staff, limited availability of beds after discharge, need for clinical stability, need for additional history and patient's financial issues. The last RLS was the only one *not* associated with increased wait times in the ED. There were significant differences in the patterns of RLS by trainee status and hospital. For example, significantly higher proportions of trainees reported that RLS in patient care were due to the need for clinical stability and additional history and lack of bed availability. In contrast, non-trainee clinicians were more likely to cite problems with the availability of ED staff as an RLS.

Conclusions—Most of the RLS in patient care identified by clinicians were associated with actual increases in ED wait time for their patients. Next steps include asking clinicians for possible solutions to the delays their patients experience.

Keywords

Emergency department; Mental health; Psychiatric patients

1. Introduction

Psychiatric visits accounted for 12.5% of 95 million visits to the Emergency Department (ED) in 2007, an increase from 5.4% for all visits in 2000 [1]. At approximately the same

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time, the average duration of Emergency Department mental health visits exceeded that of non-mental health visits by 42% [2]. Two recent studies have reported median lengths of stay from nearly 6 to over 8 h for psychiatric patients evaluated in twelve general hospital EDs across the country [3,4].

Explanations for the longer ED wait times experienced by psychiatric patients may reflect both general health care trends and circumstances specific to the psychiatric patient. Increased ED length of stay in general may be due to fewer EDs, more use of diagnostic testing in the remaining EDs, and limited availability of appropriate aftercare on either an inpatient or outpatient basis [5]. Nearly 80% of the 328 ED physician leaders who responded to a recent national survey by the American College of Emergency Physicians reported that psychiatric patients who required inpatient admission were held in their ED and 60% of these psychiatric patients waited 4 or more h [6]. A retrospective case control study at one urban psychiatric emergency room found 4 characteristics strongly associated with length of stay in excess of 24 h, which included suicidal ideation, homicidal ideation, need for inpatient admission, and lack of insurance [7]. Hence, much more remains to be learned about the experience of psychiatric patients in the ED. This lack of information has been identified as a roadblock to the identification of meaningful solutions [8].

Healthcare providers have been described to be an underused source of information, despite their unique and informed perspective to provide opinions about patient care [9]. The perspectives of ED clinicians can be important in informing and improving care in that setting. Past examples include their estimates of patient satisfaction and length of stay in the ED, their evaluations of the appropriateness of ambulance use in the context of substance use and violence by patients and their appraisal of paramedic handover in the ED [10–12]. To our knowledge, psychiatric clinicians have not been consulted as to the reasons why their patients wait in the ED, and their perspectives may help to inform methods to reduce the wait times.

The purpose of this prospective cohort study is to describe psychiatric clinicians' assessments of the reasons impeding the progress of ED evaluation among the patients they evaluated. The clinicians' identifications of these "bottlenecks" or rate-limiting steps (RLS) were collected contemporaneously with the patient evaluations and then compared with actual patient time in ED. The association of the clinicians' comments with patient characteristics was also examined.

2. Methods

A prospective cohort study of at least 1000 adult patients presenting for psychiatric evaluation in one of 5 study general hospital EDs was planned. The 5 study hospitals were part of an integrated healthcare network in the Northeast within 35 miles of one another. Two were academic medical centers (Hospitals A and C), and three were community hospitals (Hospitals B, D, and E). Data were to be collected for approximately 200 consecutive, eligible cases at each hospital with start dates staggered between June 2008 and May 2009. Cases were eligible for inclusion if the patients were adults, aged 18 years or older, and required a psychiatric consultation. A patient requesting a routine prescription refill for psychiatric medications only would not be referred for psychiatric evaluation and so would be ineligible for inclusion. Similarly, a patient for whom a "curbside psychiatric opinion" was sought would be ineligible. Additional details are available elsewhere [4].

Psychiatric clinicians were asked to complete a one-page log of their encounters. The anonymous log requested information about the hospital site and the clinician's status (viz., resident, fellow, attending, nurse practitioner, social worker, other). They were asked to

identify the rate limiting steps (RLS) in (1) finalizing (making) the disposition decision and (2) then securing the disposition. Clinicians were also given the opportunity to offer free-text comments. Only one log was completed for each patient; if necessary a log was passed onto another clinician for completion. The first two authors met with clinicians at each hospital and reviewed the log, explaining the questions and addressing any other concerns they had. The questions posed to the clinicians are listed in the Appendix.

Although clinicians were offered a series of pre-selected RLS options, many chose to write in their own free text reasons. For example, options pre-selected for question 1 might have been written as an answer for question 2. The research team reviewed the responses (SG, JAS, GC, APW, EJO) and concluded that most clinicians were responding to the two questions as one broad question about reasons for delay and did not distinguish between making a disposition decision and securing a disposition decision. For example, sometimes clinicians gave the same answer to both questions. As such, clinicians' responses were simply assigned to one of five general RLS categories. The categories were (1) patient's need to achieve clinical stability (e.g., medical acuity, or aggressive behavior); (2) need for additional history about the patient (e.g., from an out-patient provider, or a collateral reporter); (3) financial issues (e.g., the need to obtain insurance authorization for recommended treatment); (4) hospital bed availability; and (5) ED staff availability (e.g., several patients requiring evaluation at once). In addition, clinician's free-text comments were reviewed and if applicable, reason for disposition delay was assigned to one of the same five RLS categories. Although most clinicians offered one RLS per patient, when multiple RLS were offered, each one was tabulated separately. RLS category assignment was made by research staff (S.G., J.A.S.), and then confirmed by others (GC, EJO, APW) as needed.

Research staff abstracted additional data from the electronic and paper medical records to determine the total ED length of stay (LOS) (from the time of triage to the time of discharge), as well as other relevant information such as the demographic and clinical background of the patients seen by the clinicians. All (100%) electronic records, and most hard copy, paper medical records (range, 90–100%) were successfully accessed.

This study was reviewed and approved by the institutional review board responsible for all human subject research conducted by the staffs of Hospital A, B, and C. In addition, the institutional review boards of Hospital D and Hospital E reviewed and approved the study separately.

3. Data analysis

Study data were entered twice and differences were reconciled. All analyses were carried out using the SAS statistical package (version 9.2). Simple descriptive statistics were calculated and are reported as counts, percentages and medians, as appropriate.

There were two outcomes of interest. The first was the RLS identified by clinicians. The second was the patients' ED length of stay. Total ED LOS and times for the three components of LOS were calculated: (1) from triage to start of psychiatric evaluation ("door-to-psychiatry"), (2) from initiation of evaluation to disposition decision ("psychiatry-to-decision"), and (3) then from decision to discharge ("decision-to-discharge").

However, since the distribution of LOS was highly right-skewed, we concluded that means would not appropriately represent the patients' experiences, and that linear regression models would not meet the usual requirements for normality. Therefore, all results concerning LOS are presented as medians, with adjusted effects estimated through median regression, as implemented with the Quantreg procedure in the SAS package [13,14]. Tests

of significance were carried out through boot-strap re-sampling in order to avoid normal-based estimates of standard errors.

The chi-square test was used to determine any relationship between the five clinician RLS categories and clinician status, selected patient characteristics, and Hospital. Wilcoxon rank sum tests were used as the test of significance for median differences between “door-to-psychiatry” and “psychiatry-to-decision” with the five categories of clinician comments. Associations between “decision-to-discharge” and “overall LOS” with the clinician comments were adjusted for type of disposition decision (home, admit in-house, transfer, and other), and the *P* values were obtained using the Quantreg procedure.

For the multivariate predictor models, four final models were created using the Quantreg procedure. The models included the five clinician comment categories as unique predictors, with overall LOS and the three components of LOS as the outcomes of interest. The “door-to-psychiatry” and “psychiatry-to-decision” models were adjusted for Hospital, whereas “decision-to-discharge” and “overall LOS” were adjusted for Hospital and type of disposition decision.

4. Results

Psychiatric residents and fellows (henceforth referred to as trainees collectively) were the majority of respondents at Hospitals A (99.6%), B (96.3%), and C (63.9%). The preponderance of clinicians who responded at Hospitals D (81%) and E (75%) were social workers. Table 1 summarizes hospital and clinician characteristics.

Half of the patients who were evaluated were female (50.1%), with a mean age of 39.4 years. They were predominantly white (71%), but also came from other groups including Hispanic (12.9%), black (12.1%), Asian (2.1%), and other (1.9%). Most were single (68.7%), and the rest were either married (17.4%) or divorced (13.9%). Most had public insurance (71%). The primary reason for the ED visit was suicidality (32.7%, e.g., ideation), a mental health issue (37.2%, e.g., “depression”), behavior change (20.3%, e.g., new onset aggression), substance use (16.8%, e.g., acute intoxication), and or a service need (17.9%, e.g., psychiatric evaluation).

Among the 1092 evaluations, psychiatric clinicians identified no RLS in 353 (32.2%), one in 526 (48.2%), two in 183 (16.8%), three in 26 (2.4%) and four in 4 (0.4%) evaluations. The frequency of RLS varied by hospital. For example, the need to achieve clinical stability was most prevalent at Hospital A (30.9% vs. 21.4%, 19.6%, 18.8% and 22.3%, $P=.02$). Need for additional history was frequently endorsed at Hospitals A, B, and C (28.2%, 28.6%, and 27.0% respectively, compared to 16.2% and 17.2% at D and E, $P=.0008$). Patient financial issues were least frequently endorsed at Hospitals C and D (36% and 28% respectively, vs. 51%, 60% and 57% at A, B, and E, $P=.0003$). Bed availability was a common problem cited by clinicians at all hospitals (30% to 47%, $P=.33$). Difficulties with ED staff availability was more frequently endorsed at Hospitals D and E (24% and 15% respectively, vs. 5%, 6%, and 7% at A, B, and C, $P=.0002$). Table 2 summarizes the frequency of RLS by hospital.

Table 3 examines the relationship between the clinicians’ reasons and other variables. These variables were selected because other studies have suggested a possible relationship with ED length of stay, such as whether or not trainees are involved in patient care, the patient’s type of insurance, homelessness or time of presentation as measured by the shift or day of the week when the patient arrived [7,15–17]. Higher proportions of trainees endorsed the need for clinical stability (58.6% vs. 41.4%, $P=.02$), need for additional history (66.1% vs. 33.9%, $P<.0001$), financial issues (57.1% vs. 42.9%, $P=.07$), and lack of bed availability (58.4% vs. 41.6%, $P=.05$) as RLS in the care of their patients. On the other hand, significantly higher

proportions of clinicians who were not trainees listed problems with ED staff availability as a problem in their patient's ED care (75.9% vs. 24.1%, $P<.0001$). Psychiatric clinicians whose patients had public insurance were significantly more likely to have financial issues (63.3% vs. 36.6%, $P=.002$) and problems with bed availability (77.4% vs. 22.6%, $P=.04$) assigned to them. There was a trend whereby somewhat higher proportions of the homeless were thought to have problems with bed availability (17.4% vs. 13%, $P=.06$). On the other hand, the need for additional history was thought to be applicable to a lower proportion of the homeless (8.2% vs. 13%, $P=.007$). Neither the shift nor the day of the week when the patient was presented was associated with any of the psychiatric clinician reasons for delay in the ED (all, $P>.05$).

Table 4 compares the actual length of stay in the ED LOS for patients with and without the clinician attributed RLS. Those patients whose clinicians identified a need to achieve clinical stability had a 2.7 h longer overall length of stay in the ED (620 vs. 459 min, $P=.003$) and required more time to complete the psychiatric evaluation (96 vs. 71 min, $P<.0001$). Patients thought to require additional history had significantly shorter wait times for the initiation of their evaluations (126 vs. 146 min, $P=.02$) and shorter wait times from the time of disposition decision to discharge (133 vs. 192 min, $P=.02$). These patients' psychiatric evaluations were longer (90 vs. 75 min, $P=.006$), but their overall ED LOS was not different from patients who were not deemed to need additional history. Although about one quarter of patients was thought to have financial issues affecting their ED visit, there were no differences in overall ED LOS and the components of ED LOS between patients with and without financial issues. The patients for whom bed availability was identified as an issue by clinicians had significantly longer wait times after the disposition decision was made and before discharge from the ED (3.7 h more, or 365 vs. 146 min, $P=.02$). ED staff availability was the least frequently reason offered by clinicians as a RLS. Patients for whom clinicians indicated that staff availability was an issue had significantly longer wait times between time of arrival and beginning of the psychiatric evaluation (1.6 h more, or 230 vs. 133 min, $P<.0001$) but there were no other significant differences between overall ED LOS and other ED LOS components.

Table 5 summarizes the results from the multivariate analysis of predictors of ED LOS. Multivariate models using the clinicians' assessments for RLS in disposition as the predictor variables and the overall ED LOS and the components of ED LOS as the outcome variables were run with the appropriate adjustments for hospital and disposition decision (viz., home, admit in-house, transfer, etc.). With regards to overall ED LOS, three clinician identified RLS significantly increased the time. The need for clinical stability increased the time by two h, or 120 min (S.E.=27.6, $P<.0001$), problems with bed availability increased the time by 1.5 h, or 92.5 min (S.E.=34.9, $P=.008$), and problems with ED staff availability increased the time by 1.3 h or 80.5 min (S.E.=41.3, $P=.05$).

If considering only the time between triage and the start of the psychiatric evaluation (door to psychiatry), there was a delay of 90 min (S.E.=20.1, $P<.0001$) when clinicians endorsed staff availability as a problem. The time necessary to complete the psychiatric evaluation (psychiatry to decision) was increased by 30 min (S.E.=7.3, $P<.0001$) when the clinicians thought that the patients needed to achieve clinical stability and by 20 min (S.E.=4.9, $P<.0001$) when clinicians needed to obtain additional patient history. The only significant predictor of the time between psychiatric decision and discharge from the ED (decision to discharge) was bed availability, which increased the wait by 51.8 min (S.E.=24.8, $P=.04$).

5. Discussion

Psychiatric clinicians provided their unique perspectives on why patients they evaluated in the ED experienced RLS in their progress through the ED. Three RLS identified by clinicians had a significant association with overall ED LOS and included limited ED staff availability, need to achieve clinical stability in the patient, and limited bed availability after ED discharge. Only patients' financial issues were not associated with increased ED wait times.

Four of the five RLS identified by the clinicians were significantly associated with specific components of ED length of stay. Limited ED staff availability (6%) was associated with increased wait time between presenting to the ED and the start of the psychiatric evaluation. The need to achieve clinical stability (24%) and the need to obtain additional patient history (25%) were each associated with an increase in time for the psychiatric evaluation. Limited bed availability (19%) was associated with increased time in the interval between disposition decision and discharge from the ED.

There were significant differences in the patterns of reasons for patient RLS by trainee status and hospital, suggesting specific opportunities for intervention. The hospitals with the most trainees overall (A, B, C) had the highest rates of endorsement for need for additional history as a bottleneck. Yet, the need for additional history was not a significant predictor of overall ED length of stay. Hence, this may be an important teaching point for clinicians in training and their supervisors, since obtaining more history may ultimately enhance the clinical encounter by increasing its accuracy and thus its efficiency and efficacy. Trainees were also more likely to endorse the need to achieve clinical stability as a reason for delay. This may reflect their lack of comfort with acutely ill patients or the likelihood that they are frequently among the first to see patients in certain settings. Other studies have shown that the increased length of time associated with trainee work-ups in the ED has been linked to their higher rates of diagnostic testing [15]. Nonetheless, resident physicians are generally held to the same standard of care as attending physicians in their respective specialties and as such, may benefit from the timely perspectives of their supervisors, as well their support for careful history taking [18].

Problems with ED staff availability were highest at the two hospitals that relied on master's level clinicians to complete patient evaluations and were associated with an estimated increase of 80 min in overall ED length of stay. These hospitals did not have trainees. It was not possible to determine from the clinicians' responses which ED staff (e.g., psychiatric or medical) were unavailable, so that further clarification is necessary when identifying an appropriate solution such as a strategic increase in staffing. Neither shift nor day of the week (Wednesday, Thursday, Friday or not) when the patients presented was associated with any of the clinician identified bottlenecks and in particular, ED staff availability.

This study is among the few, if not only, efforts to ask psychiatric clinicians for their assessments of the rate-limiting steps to patient care in the ED. For the most part, these rate-limiting steps were associated with actual increases in ED length of stay. Their perceptions complement other findings reported in the literature, including a significant increase in the proportion of psychiatric ED visits which has coincided with nationwide reductions in mental health funding and treatment capacity at all levels, from community based care to inpatient beds [19,20]. Moreover, these clinicians have identified several bottlenecks in the ED workflow which may be amenable to modification such as increases in staffing or changes in the management of the unstable patient [21].

6. Limitations

Potential limitations to the generalizability of study findings include their setting within one system of care, the inclusion of five hospitals (academic and community) notwithstanding. None of the study hospitals had initiatives to reduce wait times in their EDs at the time of data collection. It is possible that clinicians did not record all possible RLS. Patients' financial problems was the only clinician identified rate limiting step not significantly associated with either a specific component of the ED visit or the overall ED length of stay. Possible explanations include the high rate of insurance coverage in the sample, whereby only 2.6% of residents in the study state were uninsured [22]. The perceived association between patients' financial circumstances, as manifest by their insurance status, and treatment utilization is common but frequently inaccurate [23]. There was variation in the types of clinicians who responded by hospital (e.g., mostly psychiatric residents and fellows at some hospitals, mostly psychiatric social workers at others) which may also limit generalizability. Although most of the clinician identified bottlenecks aligned well with objective measures of timing, it was not possible to confirm that these were the actual causes of delay.

7. Conclusions

This study reports on clinicians' perspectives on reasons for delay in the ED care of psychiatric patients. In other settings, input from the ED frontline staff has contributed to innovations such as the "Direct to Room" alternative to traditional triage when an ED bed is available [24]. The results from this study demonstrate an association between clinician identified reasons for delay and actual increases in ED wait times for their patients. The next step is to ask the clinicians for their guidance on possible ways to circumvent the bottlenecks they have identified to improve improving ED throughput for patients requiring psychiatric evaluation.

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Appendix: Clinician Questions about Reasons for Delay in the Emergency Department

Please tell us your experience with the following:

The rate limiting step for finalizing the disposition was:

- Out-patient provider
- Collateral reporter
- Need for patient to achieve stability
- Other, please specify _____

The rate-limiting step for securing disposition was:

- Medical acuity of the patient
- Patient behavior (e.g., assaultive, aggressive)
- Special bed need (e.g., female bed)
- Financial issues (e.g., insurance)

Other, please specify _____

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Table 1

Hospital characteristics and responding clinician status

Hospital	A (n=220)	B (n=224)	C (n=204)	D (n=229)	E (n=215)
Type	Academic	Community	Academic	Community	Community
Psychiatry (Ψ) Service model	ED M.D. ^a	ED M.D.	ED M.D./Ψ RN	ED M.D.	ED M.D.
Initial evaluation					
Psychiatric assessment	Ψ Team ^b	Ψ Team	Ψ Team	Ψ Clinician ^c	Ψ Clinician ^d
Disposition	Ψ Team	Ψ Team	Ψ Team	Ψ Clinician	Ψ Clinician
Annual number ED Ψ visits ^e	920	1009	5229	3799	2930
Responding clinician status	A	B	C	D	E
Fellow or resident	197 (99.6%)	214 (96.4%)	110 (63.9%)	0	0
Nurse practitioner	0	0	30 (8.7%)	0	0
Social worker	1 (0.4%)	0	0	179 (80.6%)	146 (75.3%)
Attending staff	0	8 (3.6%)	17 (9.9%)	37 (16.7%)	0
Other	0	0	30 (17.2%)	6 (2.7%)	48 (24.7%)

^aHospitals A, B, and C have emergency medicine residents and attendings.

^bMembers include psychiatric trainees, fellows and attending physicians, Hospital C has psychiatric nurse practitioners as well.

^cMaster's level clinician (e.g., social worker) who presents the patient to an attending physician who may or may not see the patient firsthand.

^dMaster's level clinician (e.g., social worker) who initiates the psychiatric assessment which is completed by an attending psychiatrist.

^eFor 2007 to 2008.

Table 2

Clinician reasons for bottlenecks by hospital

Clinician Reason Categories	A n=220	B n=224	C n=204	D n=229	E n=215	P value
Clinical stability	68 (30.9%)	48 (21.4%)	40 (19.6%)	43 (18.8%)	48 (22.3%)	.02
Additional history	62 (28.2%)	64 (28.6%)	55 (27.0%)	37 (16.2%)	37 (17.2%)	.0008
Financial issues	51 (23.2%)	60 (26.8%)	36 (17.7%)	28 (12.2%)	57 (26.5%)	.0003
Bed availability	47 (21.4%)	45 (20.1%)	30 (14.7%)	38 (16.6%)	35 (16.3%)	.33
Staff availability	5 (2.3%)	6 (2.7%)	7 (3.4%)	24 (10.5%)	15 (7.0%)	.0002

Table 3

Relationship between clinician reasons and other variables

Characteristics	Clinical stability <i>n</i> =247	Additional history <i>n</i> =254	Financial issues <i>n</i> =232	Bed availability <i>n</i> =195	Staff availability <i>n</i> =57
Clinician status					
Trainee (52%)	58.6%, <i>P</i> =.018	66.1%, <i>P</i> <.0001	57.1%, <i>P</i> =.07	58.4%, <i>P</i> =.047	24.1%, <i>P</i> <.0001
Not a trainee (48%)	41.4%	33.9%	42.9%	41.6%	75.9%
Patient insurance					
Public (71%)	75.3%, <i>P</i> =.12	68.1%, <i>P</i> =.19	63.3%, <i>P</i> =.002	77.4%, <i>P</i> =.038	n/a
Commercial (29%)	24.7%	31.9%	36.6%	22.6%	
Patient homelessness					
Yes (13%)	26.2%, <i>P</i> =.27	8.2%, <i>P</i> =.007	12.9%, <i>P</i> =.86	17.4%, <i>P</i> =.059	n/a
No (87%)	73.8%	91.8%	87.1%	82.6%	
Shift when patient presented					
8 a.m.–4 p.m. (44%)	38.6%, <i>P</i> =.16	40.2%, <i>P</i> =.28	42.6%, <i>P</i> =.90	41.5%, <i>P</i> =.33	42.1%, <i>P</i> =.96
4 p.m.–12 m.n. (42%)	46.8%	46.5%	43.5%	46.7%	43.9%
12 m.n.–8 a.m. (14%)	14.6%	13.4%	13.9%	11.8%	14.0%
Day of week when patient presented					
Wed, Thu, Fri (47%)	45.9%, <i>P</i> =.84	49.2%, <i>P</i> =.32	44.4%, <i>P</i> =.46	43.1%, <i>P</i> =.29	47.4%, <i>P</i> =.89
Other (53%)	54.1%	50.8%	55.6%	56.9%	52.6%

Table 4

Comparison of ED LOS by clinicians' reasons

Need to achieve clinical stability			
Median times (min)	Yes (n=247)	No (n=845)	P value
Door to psychiatry	144	137	.47
Psychiatry to decision	96	71	<.0001
Decision to discharge ^a	199	160	.23
Overall LOS ^a	620	459	.003
Need for additional history			
Median times (min)	Yes (n=255)	No (n=837)	P value
Door to psychiatry	124	146	.02
Psychiatry to decision	90	75	.006
Decision to discharge ^a	133	192	.02
Overall LOS ^a	439	518	.66
Problem with patient's financial issues			
Median times (min)	Yes (n=232)	No (n=860)	P value
Door to psychiatry	128	141	.21
Psychiatry to decision	75	75	.92
Decision to discharge ^a	256	152	.70
Overall LOS ^a	564	481	.75
Problem with bed availability			
Median times (min)	Yes (n=195)	No (n=897)	P value
Door to psychiatry	125	143	.18
Psychiatry to decision	78	75	.70
Decision to discharge ^a	365	146	.02
Overall LOS ^a	629	472	.32
Problem with ED staff availability			
Median times (min)	Yes (n=57)	No (n=1035)	P value
Door to psychiatry	230	133	<.0001
Psychiatry to decision	75	75	.68
Decision to discharge ^a	88	180	.07
Overall LOS ^a	458	496	.26

^aThese values were adjusted for type of disposition decision (home, admit in-house, transfer, and other).

Table 5

Multivariate predictors of ED LOS

Predictor	Door to psychiatry ^a		Psychiatry to decision ^a		Decision to discharge ^b		Overall ED LOS ^b	
	Estimate (S.E.)	P value	Estimate (S.E.)	P value	Estimate (S.E.)	P value	Estimate (S.E.)	P value
Clinical stability	13 (11.5)	.26	30 (7.3)	<.0001	26.8 (14.4)	.06	120 (27.6)	<.0001
Additional history	-12 (6.8)	.08	20 (4.9)	<.0001	-7 (12.1)	.56	-4.5 (26.1)	.86
Financial issues	1.0 (10.7)	.92	0 (3.6)	1	7.8 (15.8)	.62	26.5 (24.4)	.28
Bed availability	-	-	-	-	51.8 (24.8)	.04	92.5 (34.9)	.008
Staff availability	90 (20.1)	<.0001	8 (12.6)	.53	-17.8 (13.2)	.18	80.5 (41.3)	.05

^a Adjusted by hospital.

^b Adjusted by hospital and disposition decision.