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Psychiatric Boarding in U.S. EDs: A Multifactorial Problem that Requires Multidisicplinary Solutions

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Abstract

ED visits for psychiatric conditions make up an ever-increasing share of all ED visits. Patients with psychiatric complaints have a significantly greater length-of-stay in the ED than patients with non-psychiatric complaints. Prolonged boarding in the ED for psychiatric patients is associated with lower quality care for psychiatric patients and further contributes to overall ED crowding.

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Executive Summary

Psychiatric boarding, or the time spent waiting in a hospital emergency department (ED) for an inpatient hospital bed or transfer to another inpatient facility by patients with primary psychiatric conditions, is a widely recognized phenomenon across the United States. ED visits for psychiatric conditions make up an ever-increasing share of all ED visits. Patients with psychiatric complaints have a significantly greater length-of-stay in the ED than patients with non-psychiatric complaints. Prolonged boarding in the ED for psychiatric patients is associated with lower quality care for psychiatric patients and further contributes to overall ED crowding. There are multiple causes for psychiatric ED boarding, including a lack of inpatient beds, inadequate access to hospital-based mental health clinicians, inadequate supply of community outpatient resources, increased rates of severe social stressors such as homelessness or substance abuse, and a lack of effective insurance coverage for psychiatric illness. Solutions to reduce psychiatric boarding in the ED will require multi-disciplinary collaboration between providers, hospitals, payers, community services and patient advocacy groups.

Background

The number of psychiatric patients treated in U.S. EDs has been steadily rising. In 2007, 12.5 percent of adult ED visits in US hospitals were mental health related, up from 5.4 percent in 2000.[1] Almost 41 percent of psychiatric visits lead to hospital admission—over 2.5 times the rate of ED visits for other conditions.[1] In a 2008 survey, more than 90 percent of ED directors reported boarding psychiatric patients every week, with more than 55 percent stating that patients board daily or on multiple days during the week. Between 2001 and 2006, the average duration of ED visits for psychiatric complaints was 42% longer than for non-psychiatric complaints.[2] In one study, ED length of stay was more than 12 hours longer for psychiatric admissions (18 hours) compared to non-psychiatric admissions (5 hours).[3]

Psychiatric care delivery varies across EDs. In some EDs, the emergency medicine physician decides whether a patient needs admission to a psychiatric hospital. In other EDs, the emergency medicine physician requests a psychiatric consultation when a patient presents with a potential psychiatric emergency and the consulting mental health specialist determines the need for admission. In other hospitals, patients with psychiatric complaints go directly to a psychiatric-specific ED within a general hospital and sometimes dedicated psychiatric hospitals will have EDs. Following the decision to admit, boarding in the ED is an unfortunate next-step for thousands of patients. Boarding is the time spent waiting in an ED for a hospital bed or for transfer to another inpatient facility; however, definitions vary on when the boarding time actually starts.[4,5]

Psychiatric boarding is a national public health problem that has been described across a wide geographic area, and varies depending upon local

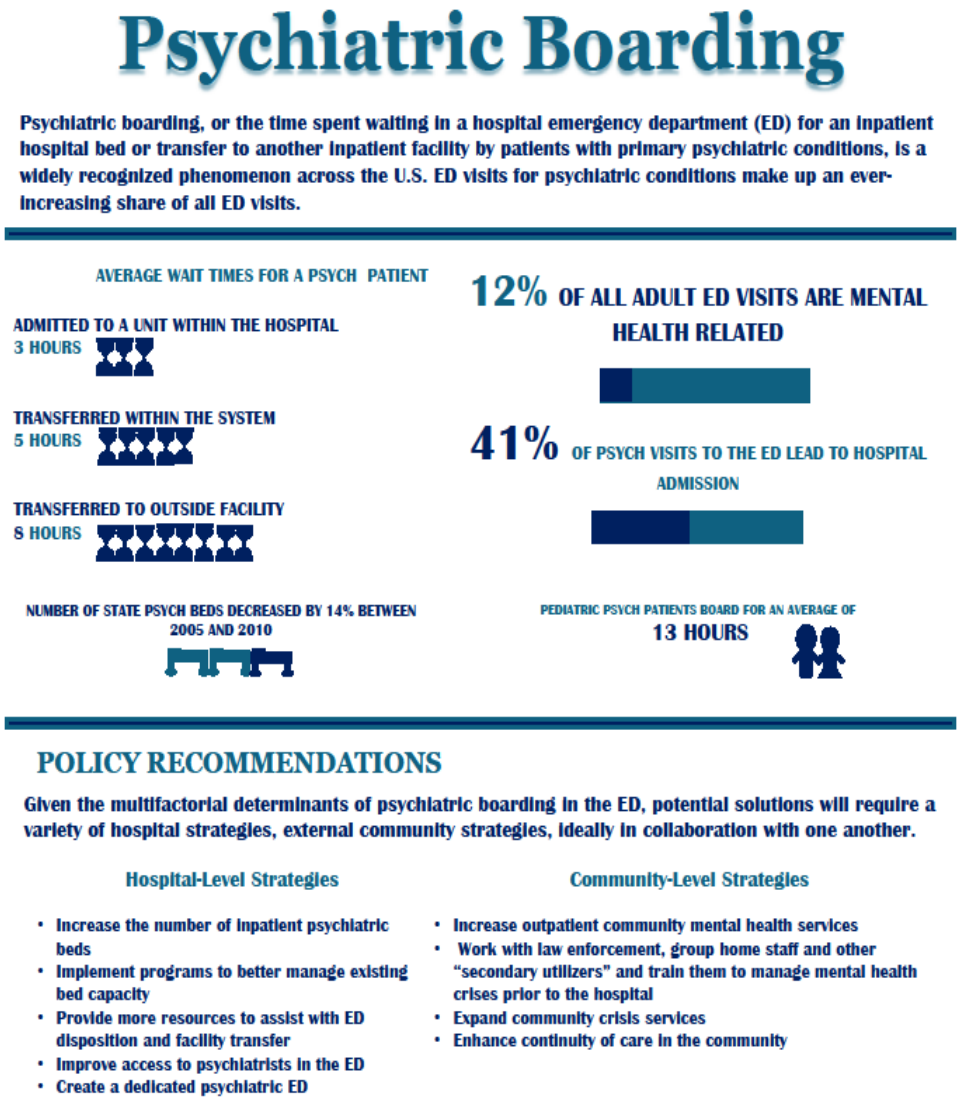
community outpatient and inpatient resources. In Maryland, psychiatric boarding may last for several days, while in California, boarding in the ED is less—reported as an average of 10 hours in one study.[6,7] Psychiatric boarding also impacts children: in one study, pediatric patients boarded for an average of 13 hours.[7]

Clinical Impact of Boarding

Patients often do not receive high quality care when they are boarding in the ED. [4,6] Six in ten ED directors report that psychiatric services are not provided during the boarding period.[8] Among all boarders (psychiatric and non-psychiatric), 18% in one study reportedly missed a relevant home medication and 3% had a preventable adverse event.[9] For many psychiatric patients, the chaotic ED environment itself can increase psychological stress on patients who are already often in psychotic or depressed states, further exacerbating their condition.[4,6] Psychiatric patients who are boarded will typically be placed in any available ED bed; others may board in hallways, in separate areas for psychiatric patients, or in locked units for patients who are potentially violent.[10] Treating psychiatric patients requires more nursing care than for non-psychiatric patients.[8] Psychiatric boarding consumes scarce ED resources and worsens crowding, so that other patients with undifferentiated, potentially life-threatening conditions wait longer to be seen and treated.

The Role of the Community

The rise in psychiatric visits in EDs is a symptom of a wider mental health care delivery crisis.[4] Without access to community mental health services, psychiatric patients increasingly rely on EDs for basic care and intermediate needs—including medication management—services which can be delivered at a lower cost in the community.[3,7] The 1960s marked a deinstitutionalization of patients with psychiatric conditions: the number of inpatient psychiatric beds fell from 524,878 in 1970 to 211,199 in 2002.[11] Between 1990 and 2000, inpatient psychiatric beds per capita declined 27 percent.[12] The Community Mental Health Centers Act of 1963, intended to create a mental health center in every community in order to serve psychiatric patients moved out of institutions, was never fully realized.[4] The rise in ED visits by psychiatric patients is thus



viewed as a "proxy measure" for the failure of the outpatient system.[13]

Other Factors Contributing To Psychiatric ED Boarding

Insurance status is also a factor that leads to longer ED boarding times for psychiatric patients: psychiatric boarders are more likely to be uninsured or underinsured than patients boarding for non-psychiatric conditions.[3,6] Uninsured psychiatric patients spend an average of four hours longer in the ED than commercially insured patients because finding facilities that will accept admissions without insurance is a challenge.[14] Other contributors to boarding include the time spent handling the pre-certification process required by many insurance carriers.[6,8,10]

Financial Impact of Boarding

- Psychiatric boarding can also have a significant financial impact on ED reimbursement by consuming ED resources and reducing bed turnover.[3] Psychiatric boarders prevent ED beds from being used for new patients.[3]
- When opportunity losses are taken into account, psychiatric boarding costs the ED $2,264 per patient.[3] For an ED with ~62,500 yearly visits, this can reduce the functional capacity of the ED by an equivalent of 3,175 patients.[22]

Alcohol intoxication is also a major factor that leads to prolonged boarding times. In one study of five EDs, patients with a positive toxicology screen for alcohol (with or without other substances) boarded for more than 6 hours longer than patients with a negative screen.[14] The need for additional diagnostic testing also lengthens the stay for psychiatric patients: in one study, the use of diagnostic imaging was associated with a more than 3-hour longer stay.[14] Patients in the ED also typically undergo routine screening laboratory tests prior to inpatient admission—a process which can also contribute to longer boarding times. Multiple studies have reported that routine laboratory screening tests for psychiatric patients in the ED have limited utility; history and physical examination are often sufficient for most medical clearances.[15-18]

Specific Sub-populations: Children, Agitated Patients, and Transfers

ED boarding is also observed in facilities that treat pediatric patients. In pediatric EDs, different factors contribute to psychiatric boarding. In one study, a diagnosis of autism, mental retardation or developmental delay was associated with prolonged boarding.[5] In addition, presenting for care on the overnight shift, during the weekend, during months without school vacation, with suicidal ideation or a comorbid medical illness increases the risk of boarding significantly.[5] Interestingly, pediatric patients with moderate suicidal ideation were less likely to board compared to those with severe suicidal ideation.[5] "Moderately" suicidal patients may more desirable to inpatient psychiatric units; that is, their symptoms are not extremely severe and they typically respond positively to treatment. Patients with severe suicidal ideation are more difficult to stabilize, require more resources, and may be more disruptive, which leads to the anti-triage phenomenon of more acute patients remaining in the ED, with moderately suicidal patients being admitted more quickly.[5]

In a study evaluating adult psychiatric patients with lengths of stay longer than 24 hours in five Massachusetts EDs, the use of 1:1 observers or restraints was associated with extended ED stays.[14,19] Patients who were threats to ED staff or to themselves also may have longer ED boarding times. Patients requiring restraints board more than 4 hours longer compared to patients not requiring restraints, suggesting that bed-finding may be more difficult for these patients, or that it takes more time to stabilize agitated patients before transfer to the inpatient setting[14,19] The Joint Commission on Accreditation of Healthcare Organization (JCAHO) and other advocacy groups discourage the use of restraints in the ED, and have pushed for alternative agitation reduction techniques where appropriate.[20]

Lack of inpatient beds is a commonly cited reason for extended ED boarding times, a problem further exacerbated by the number of admissions.[6-8,21] In one study, two-thirds of all patients presenting with psychiatric complaints were either admitted or transferred.[14] Compared to patients discharged home, the added wait time was approximately 3 hours for admitted patients, 5 hours for patients transferred to a unit within the

larger health care system, and more than 6 hours for patients transferred to an outside health system.[14] Other contributors to boarding include the lack of safe transport to other hospitals.[6,8,10]

Policy Recommendations

Given the multifactorial determinants of psychiatric boarding in the ED, potential solutions will require a variety of hospital strategies, external community strategies, ideally in collaboration with one another.

Hospital-level strategies:

- **Increase the number of inpatient psychiatric beds**
- **Implement programs to better manage existing bed capacity**
    - E.g., "bed czars" who manage inpatient capacity, as well as computerized bed management systems[6]
- **Provide more resources to assist with ED disposition and facility transfer**
    - Consider a crisis clinician staffed by a nurse or social worker to provide assistance during times of peak mental health patient ED occupancy.[23]
- **Improve access to psychiatrists in the ED**
    - Consider the use of tele-psychiatry to mitigate the lack of access to psychiatrists during nights and weekends, or in EDs without psychiatrists.[10]
    - Promote improved collaboration between ED providers and the psychiatric consultation services to treat and discharge patients, or to reduce boarding times in the ED. [24]
- **Create a dedicated psychiatric ED**
    - The use of a dedicated Psychiatric Emergency Service may reduce the length of boarding time for patients awaiting psychiatric care and improve safety and quality. [25,26]

Community-Level Strategies:

- **Increase outpatient community mental health services**
- **Work with law enforcement, group home staff and other "secondary utilizers" and train them to manage mental health crises prior to the hospital**
    - Educating law enforcement officers to recognize and respond to mental health crises may reduce some demands on EDs.[4]
- **Expand community crisis services**
    - Harris County, Texas developed the Comprehensive Emergency Psychiatric Program, which is comprised of 6 components: a round-the-clock crisis hotline, round-the-clock psychiatric emergency services, a mobile crisis outreach team, a crisis stabilization unit, a voluntary emergency residential unit, and a crisis counseling unit.[27]
    - In Missouri, the Psychiatric Stabilization Center (PSC), which treats psychiatric patients in crisis, has 25 beds for patients requiring inpatient psychiatric care. The PSC, partly funded by the Missouri Department of Mental Health, also provides assistance with community mental health services upon discharge from the facility.[28]
    - The Grady EMS Upstream Crisis Intervention pilot in Atlanta, Georgia targeted mental health-related 911 calls, and provided mental health professional evaluations on-scene as well as

referrals to outpatient resources. The pilot demonstrated success in diverting unnecessary ED visits.[29]

- **Enhance continuity of care in the community**
  - The Affordable Care Act has created an optional benefit for states to coordinate care for chronically ill individuals, including those with mental health conditions, through the establishment of Health Homes, where providers will integrate and coordinate all primary, acute, behavioral health, and long-term services for persons with chronic conditions.[30]

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