Behavioral Health Patient Boarding in the ED

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Behavioral Health Patient Boarding in the Emergency Department

Boarding in the Emergency Department

The practice of holding admitted patients in the Emergency Department (ED) area until the inpatient bed becomes available is defined as boarding. It is one of the main reasons leading to emergency room overcrowding.[1] Boarding can last for more than 24 hours causing overuse of the Emergency Department resources, beds, hospital utilities and services which could have been utilized by patients requiring emergency care.[2]

Psychiatric boarding (the holding of behavioral health patients) is described differently under various situations as there is no standard definition. According to:

> Weithorn[3] – "phenomenon of persons with mental disorders remaining in the hospital emergency rooms while waiting for mental health services to become available"
>
> American Association of Emergency Physician (ACEP) (2008)[4] – "psychiatric boarding can be classified as when a patient remains in the ED for four or more additional hours after the decision is made to admit".
>
> Stefan[5] - "psychiatric boarding is the stay in the ED exceeding 24 hours ".

The additional wait in an Emergency Department before receiving the deemed mental health services coupled with overcrowding can further deteriorate the health of the patient and can lead to life threatening circumstances. According to the Agency for Healthcare Research and Quality (AHRQ) many factors contribute for inferior health outcomes.

1. Compromised quality of care – Emergency Department is a high stress work environment and extra demand due to overcrowding can surge the error rates.[6]

2. Quality measures by Institute of Medicine (IOM) that is safety, effectiveness, patient-centeredness, efficiency, timeliness, and equity are all compromised in overcrowded Emergency Departments due to long waits and diversion of the ambulance away from the hospital closest to the patients. This results in 5 percent increase in likeliness for the patient to die as compared to less crowed emergency units.[7] 2006 IOM report states that the "Future of Emergency Care: Hospital-Based Emergency Care at the Breaking Point," due to overcrowded Emergency Departments.[7]

3. Timely treatment of the patient is a growing issue. It helps prevent patient pain and suffering along with delays in diagnosis and treatment.[7]

Statistics

Severity of the problem

1. Hospital Emergency Department visits per 1,000 population were 423 in 2013. This is a drastic increase from the 2000 levels of 366 per 1000 population.[8]

2. In 2007, 12 million Emergency Department visits were related to mental health and substance abuse constituting 12.5 percent of the total Emergency Department visits.[9]

3. Focusing on psychiatric needs, there was 42 percent increase in boarding behavioral health patients in Emergency Departments in the US in 2007. Furthermore, in 2008, 80 percent of these departments reported boarding psychiatric patients with 55 percent reported boarding daily or multiple times a week.[10]

4. American College of Emergency Physicians (ACEP) conducted a survey in 2008 which found that 99 percent of emergency physician admit psychiatric patient daily.[31]

5. In a survey conducted in the state of MA, 100 percent Emergency Department directors reported boarding of psychiatric patients with 85 percent on daily basis. This reflects a clear 50 percent rise since 2007 levels.[11]

6. Urban centers including the Metropolitan Statistical Areas (geographical area with 50,000 or more population) have acute psychiatric boarding issues.[12] Some regions are worth mentioning as they are classic examples of severe case of psychiatric boarding in the past.

    - Clark County, Nevada in July 2004 declared a state of emergency because of the flooding of ED with patients of mental disorders.[3]

    - The average boarding time across the state of Georgia's emergency room treatment ranges from 34 hours to several days for emergency bed in the state run psychiatric hospitals.[3]

7. The conditions are even acute in rural hospitals. They suffer from lack of mental health services along with qualified mental health professionals to treat psychiatric patients.[32] The Oregon Office of Rural Health toured 27 rural hospitals in November 2014. They found that all rural hospitals face significant challenge in finding inpatient beds for mental health patients. Hospitals reported ED stays lasting up to 18 days.[32]

8. Interviews conducted with ED directors of 15 safety net hospitals around US reported that EDs act as a safety net for psychiatric treatment as access to both inpatient and outpatient psychiatric care is limited.[33]

9. A study at the Boston Medical Center, Massachusetts reveals that 34 percent of children with severe psychiatric needs are admitted to inpatient pediatric services rather than the inpatient psychiatric services.[3]

10. In Canada, National Ambulatory Care Reporting System (NACRS) reported 10 million Emergency Department visits in 2013-2014 with an average wait time of 7.6 hours.[13] According to study by Atzema and colleagues mental illness receives a higher triage score as compared to other Emergency Department patients but still the their waiting time for assessment by physician is 7 minutes longer.[14]

Safety Concerns for Healthcare Workers

1. According to the Massachusetts Nurses Association, workplace violence affects about 1.7 million U.S. employees each year directly and millions more indirectly.[15]

2. Health care is categorized as a high risk profession constituting 48 percent of all non-fatal assaults in the U.S in 2011.[15]

3. Assaults on health care workers are 4 times higher as compared to other industries which increases to 12 times for nurses and personal care workers.[15]

4. According to a survey conducted in Massachusetts in 2004, 50 percent of the nurses had been punched at least once in the last two years; 44 percent reported threats of abuse and 25-30 percent were regularly or frequently pinched, scratched, spit on or had their hand or wrist twisted.[15]

5. Violent acts were conducted using medical equipment, pens, pencils, furniture used as weapons.[15]

6. According to a December 16th 2014 Bureau of Labor Statistics report, the rate of workplace violence-related nonfatal occupational injuries and illnesses causing loss of work days for healthcare workers was 16.2 per 10,000 full-time workers in 2014, four times the rate for all other private industries in the US.[16]

7. In British Columbia, Canada 40 percent of all violence related claims come from health care workers though they form just 5 percent of the working population.[17]

There is a high probability that violent incidences are underreported and the actual number of cases is higher. Hospital's reporting policies, healthcare staff behavior and beliefs on benefits of reporting or fear of placing themselves under the scrutiny for work performance by employees hugely affects reporting of violent episodes. Hence, there is a lack of comprehensive data on the extent and severity of security issues linked to psychiatric boarding underestimating the gravity of the situation.[15]

Reasons for Psychiatric Boarding:

1. Capacity Constraints

- Deinstitutionalization (treating psychiatric patients in the outpatient or community based treatment facilities) started in 1960s causing a drastic decline in the hospital's inpatient psychiatric beds. Their number decreased from 400,000 nationwide in 1970 to 50,000 in 2006, hampering the delivery of mental health services.[18]

- This can be explained as a supply and demand discrepancy. According to the U.S. Subcommittee on Acute Care to the President's New Freedom Commission there was a drastic decline in the supply of beds for inpatient psychiatric care since 1970.[3] This has led to a serious disruption of the delivery system for psychiatric health services. However, the percentage of cases with mental disorder as the primary diagnosis have increased from 3.2 percent to 3.6 percent from 2000 to 2006.[3]

- American Medical Association (AMA) published a report in 2008 validating the shortage for mental health services due to lack of adequate funding to community mental health services. Hospitals ended up bearing the financial cost of uninsured

or underinsured psychiatric patients leading to closer of psychiatric units and decrease in the number of inpatient beds nationally.[18]

2. Limited Outpatient Resources and Community Based Services

- A rise in Emergency Department visits by psychiatric health patients is one consequence of the failure of outpatient psychiatric services to accommodate growing needs of this patient population. Community-based approaches for treatment of mental illness yield high levels of success, but often this service is unavailable or unaffordable to many mentally ill individuals, forcing patients to revert to Emergency Departments for assitance.[19]

- Rural areas are severely impacted, at times with no access to mental health services. Therefore, critical access hospitals (CAHs) are forced to refer patients to geographically distant healthcare facilities. As an example, at the Maine Rural Health Research Center, CAHs are forced to refer patients to medical detoxification and inpatient psychiatric services, with an average travel time of one hour.[21]

- Emergency Departments have become the last resort for mental health patients due to the limited accessibility and an inability to afford community-based mental health services. Moreover, the US Emergency Medical Treatment and Labor Act (EMTALA) mandate care for patients presenting at Emergency Departments irrespective of their capacity to pay. This creates an extra burden on the ED's capacity to provide treatment, significantly increasing the boarding time for psychiatric patients.[22] Fragmented continuums of care lead to lack of shared responsibility between the ED and mental health institutions.

3. Lack of Funding

- Deinstitutionalization was not followed by adequate capacity building and funding schemes to cater to the need of behavioral health patients. Hospitals have lacked willingness and motivation for developing infrastructure to fulfill the increased demand for inpatient psychiatric services owing to few financial incentives[3] and often view psychiatric services as a money losing proposition in an era of narrow revenues.[23]

- Private hospitals are reluctant to bear the cost of hospitalization of Medicare or uninsured psychiatric patient and hence started systemic defunding of psychiatric

services leading to behavioral health boarding and increased wait time in ED. Capacity issues indirectly relate to the funding constraints of the hospitals.

- Lack of insurance also plays a crucial role for psychiatric patients inpatient care. Longer waiting times have been reported for uninsured, Medicaid and children with psychiatric emergency.[34]

4. Legal and Liability Issues

- ED physicians are usually faced with the difficult decision of whether to provide admission to a behavioral health patient presented in ED or not. The decision needs to be made in a very short span of time and in order to avoid future legal and liability issues, physicians usually take the safe road of admitting the mentally ill patient. This factor increases the demand for psychiatric inpatient beds leading to increased boarding time and overcrowding in ED.[3] Legal and liability issues arises in the form of malpractice lawsuit against physician and nurses if the patient attempts or commits suicide after examination in the ED.[3]

- Individuals falsifying suicidal tendencies to gain admission in the hospital, and then rescinding the statement after admission is known as contingent suicidality. In order to avoid potential liabilities hospital staff members admit such patients further aggravating the demand for psychiatric inpatient beds. [3]

- Requirement of pre authorization of insurance prior to inpatient admission adds on to the boarding time.[34]

5. Inappropriate Deference to "Secondary Utilizers" of ED Service

- Secondary utilizers like law enforcement, group home operators, and family members of the patients can resolve conflicts with the behavioral patient in the ED.[3] According to Stefan, patient accompanied with someone have greater chances of being admitted in the inpatient, irrespective of their symptoms adding to increase in demand for inpatient care. He also mentions that there is inadequate assessment of psychiatric patients in the ED causing an increased inpatient admission and hence the boarding.[5]

Ill-effects of Psychiatric Boarding[35]

- Boarding causes delay in treatment for psychiatric patients which increases the probability of inpatient admissions
- Increased psychological stress for patients and their family members
- Overcrowding in ED
- Extra pressure on the scare ED resource
- Treatment delays for other ED patient who may be suffering from life threatening conditions
- Financial liability on ED reimbursement

Factors Exacerbating Boarding Time

- Only limited facilities accept underinsured and uninsured patients psychiatric patients[35]
- Patient cannot use the inpatient hospital services if the patient has out of network insurance[31]
- Pre certification process required by many insurers adds to the time delay[35]
- Lack of tools to conduct psychiatric evaluations[34]
- Patients presenting at weekends or during overnight shifts[35]
- Psychiatric patients presenting with following characteristics usually spends more time in the ED:
    - Pediatric cases[35]
    - Psychiatric patients presenting with intoxication, substance abuse[35]
    - Patients having diagnosis of autism, mental retardation, developmental delay, suicidal ideation[35]
    - Patients with comorbid medical condition[35,37]
    - Homeless patients[34]

Care and Safety in Psychiatric ED:

1. Development of protocols for treatment of mental health issues similar to the ones already in use for the management of heat attacks, strokes and trauma in the ED.[24] Though psychiatric patients do not always present with life threatening symptoms, quick assessment and delivery of appropriate treatment are potential factors for reducing chances of mishaps and improving safety in the ED.

2. Standard protocols can be created by developing triage guidelines for mental health patient assessment and treatment. This will increase the competency and quality of health care delivery for patients requiring psychiatric help.[24]

3. To decrease the risk of inadvertent events, hospitals should begin treatment while the behavioral health patient is in the ED.[24] Screening and initial treatment plans can be developed while the patient waits in ED before assignment of an inpatient bed or arrangement of transportation to a psychiatric unit or community center. Maximum delay in Emergency Departments is caused due to assessment and disposition factors. Emergency medicine practice subcommittee on crowding analyzed the movement of patient through the Emergency Department. The flow of the patient is - triage, bed placement, physician evaluation, diagnostic tests, treatment, and disposition[25]. Number of obstruction and obstacle interfere with the process causing unwarranted delays. To name a few are workers efficiency, multiple consultations and further investigations, poor patient response, late arrival of investigational report.[25] To expedite the disposition an ED case manager will be useful for managing and coordinating post ED care.[24]

4. Reducing stimulants like noise, overcrowding and cramped spaces for dangerous behaviors in Emergency Department provide an opportunity for improving care and safety.

5. Prolonged ED stays dramatically increase the risk profile for the facility and are usually accompanied by exacerbation of patient symptoms or elopement attempts of patients needing psychiatric care. Busy and noisy EDs act as an external stimuli that can increase patient anxiety and agitation.[27,28] Moreover, increased boarding time leads to extra utilization of emergency services and resources including services from safety attendants, security officers and other resources employed for the safety of staff and patients.[28]

6. Poor health outcomes are evident in the form of increased morbidity and mortality due to delay in health care delivery in ED. [28,29]This is the repercussion of ED overcrowding, lack of emergency or inpatient beds and patients leaving without seeking care. This makes a potential case for patient care and customer relation issues.[25,26]

7. Staffing ED with health care providers competent to care for patients with mental health issues like psychiatric RNs, behavioral health technicians, social workers and security officers.

8. Additionally, the physical structure of an Emergency Department should contain a small separate quieter sitting area for the mental health patients connected to the ED. Here the patients can be directly under the supervision of the ED physician responsible for providing timely and appropriate care to them.[24] The primary goals of such an arrangement is to provide a safe, calm and therapeutic environment for the patients, family as well as the providers to assess, manage and deliver treatment.[24]

Design Guidelines[40]

International Association of Healthcare Security and Safety recommends design guidelines for health care facilities to address the need of safe treatment environment for psychiatric patients. These patients' presents unique challenges and risk because of their medical conditions. Design guidelines takes into account variety of health care settings which provides care to psychiatric patients. Factors impacting patient's characteristics like diagnosis, age, gender, patient acuity and risk for themselves and others are included to develop design guideline.

Emergency Department specific security design should address the following –

1. External entrances should be equipped to restrict access to facility.

2. Video monitoring camera at the ED walk in entrance for public viewing and awareness

3. Queuing and screening of visitors and patients prior entering waiting areas and treatment space. Depending upon the vulnerability of the population served metal screening an also be utilized.

4. Signage providing clear messaging for passage points for patients, visitors and staff. Clear distinction to be provided between registration/admitting desk and waiting areas. Access to the health care facility from the ED should be tightly secured.

5. Security/police officer workstation should be visible from ED waiting area, triage area and registration.

6. Furniture pieces should be affixed to each other, floor or the wall with no small or singular pieces.

7. Windows in the Emergency Department should be covered to prevent internal viewing.

8. Workstations should be strategically positioned to provide direct access to exit portals and equipped with duress alarm.

9. Work areas and nursing stations should be protected by building high and strong compartments to prevent patients or family members from jumping over the barriers and assaulting employees.

10. Triage and ED waiting areas should be distinct. A clear line of sight to be there between triage workstation and ED walk-in entries. Triage access should have two points of entry/exit for the staff.

11. Authorized health care facility personnel should control access to medical treatment areas, including doors, elevators and stairwell. Doors should have communication device on the external side of the entrance with direct visual observations or video surveillance.

12. Access to staff lockers and lounges should also be controlled by authorized healthcare facility staff.

13. A safe room should be established within the ED that can be locked from inside to retreat in the event of an act of violence or danger. Safe room should be equipped with duress button, reinforced door with a peep hole and an external lock and key access.

14. Patient and visitors waiting areas must be equipped with –
    - One primary access control point
    - Washrooms, vending machines, and telephones
    - Fire extinguishers
    - Security fastened wall hangings
    - Video Surveillance

If the health care facility is serving high risk patient (disruptive or aggressive patients, risk of elopement) following additional features can be implemented in the ED design –

1. Isolating and distancing the patient from departmental exits with direct observation by room clinical staff.

2. Locating patient in close proximity to dedicated restrooms.

3. Patient should be remotely monitored using video surveillance with audio capacity. Monitoring location should meet patient privacy and clinical requirements.

4. Control access in and out of the patient room.

5. Incorporating safety measures to mitigate the potential of patient to cause harm to others and themselves.

6. Protecting medical equipment to be placed in the room in locked cabinetry or impact resistant laminate, or hardened material.

7. Installation of television for patients held over for extended periods of time. Television to be mounted behind protective glazing.

Emergency Departments are More Prone to Security Related Issues

Numerous factors enhance the risk of violence in Emergency Departments as compared to other hospital settings. The types of services provided coupled with the overall stressful environment increases the vulnerability[15]. Contributing factors include:

1. Availability of 24-hour services at the Emergency Department

2. Lack of adequately trained, armed, or visible security personnel

3. Patients often arrive in pain and discomfort,

4. High risk patients includes those with psychiatric conditions or/and under the influence of alcohol and drugs

5. Family member are stressed due to patient's condition and complexities related to navigating the health care system

6. Physical hospitals factors like improper lightning conditions, building design consisting of cramped space and access to unsecured areas.

7. Overcrowding and long wait times in ED act as a stimulant to already stressed family members of the patient

8. Arrested individuals seeking medical clearance for alcohol and drug related problems are brought to ED before going to jail, constituting a high risk group

The hospital administrator or ED coordinator should periodically inspect the workplace and evaluate employee tasks to identify conditions and situations which might instigate

an incidence of violence, and should consider a multidisciplinary group to assist them including security.[15]

Laws Related to ED Violence

Occupational health and safety laws assert the importance of safe working environment for the employees. According to the "General Duty Clause 5A-1" of the Occupational Safety and Health Act (OSHA), employers are required to have a workplace that is "free from recognized hazards."[15] ENA (Emergency Nurses Association) reinforces the same by stating that, "Health care organizations have a responsibility to provide a safe and secure environment for their employees and the public. Emergency nurses have the right to take appropriate measures to protect themselves and their patients from injury due to violent individuals."[15]

According to the Criminal Code of Canada, every individual have the right to "use much force as it is reasonably necessary to prevent an assault from occurring, or to defend himself or anyone under his protection as long as he uses no more force than is reasonably necessary to prevent the assault or the repetition of it".[17]

The Occupational Health and Safety (OHS) regulation under section 4.28 calls for a risk assessment of the work place to ensure that the workplace is in compliance with OHS regulation. Under section 4.29 the employer is mandated to establish policies and procedures are in place to address worker's needs.[17] Training and education forms an important component of the confronting workplace violence. Criminal Code of Canada, the Workers Compensation Act and OHS regulation 4.30 advocates the workers right of refusing unsafe work and full disclosure from the employer about the exposure for the risk of violence.[17]

Workplace violence is the third highest cause for all occupation related death in the U.S. and the top most reason of occupational death for females. According to the American Nurse's Association 25 percent of nurses' list physical assault as the prime safety concern on job.[3,15] Therefore, arises the need for stringent laws.

Strategies to Reduce Violence in the ED

A safe working environment is the key for improved staff morale and greater productivity. Therefore, preventive strategies to reduce victimization of medical personnel in ED assumes immense importance.[15]

1. Early recognition of potential violence prepares health care providers and can result in a reduction in violence related incidences

2. Control of environmental factors provoking violent tendencies by –
    - Verbal or psychological intervention approach
    - Early recognition of potential violence by a calm and prepared health provider
    - Physical and/or chemical restraints based upon regulatory and legal guidelines.

3. Management plans to identify and control potential violent situations at the ED. The plan should include procedures to:

    - Confront and cope with violent situations

    - Procedures and methods to alert co-workers and call security and/or law enforcement

    - Self-defense training and conflict resolution education for the staff members

    - Procedures to cope with and diffuse potentially violent situations, call security and / or police and provide personal protection while awaiting assistance.

Mitigation Strategies for Violence in the ED[29]

Innumerable causes and challenges are associated with violence against caregivers in EDs and hospital administrators have the sole accountability for taking measures to curb the likelihood of violence and provide better management readiness and strategies to minimize the harmful effects. A multifaceted approach crafted to provide customized solutions according to the results of a hospital risk and trend analysis.
The Haddon's Matrix can be used to identify the factors that contribute to workplace violence and corresponding mitigation strategies that can be implemented before, during and after the event that may influence the outcomes[30]. Haddon's matrix is the most commonly used paradigm in the injury prevention field. It was developed by William Haddon in 1970. It is a table showing the host, agent and environmental factors responsible for an incident set against the time sequence[30]. The cells of the matrix illustrate the range of risk or protective factors involved.[30] By utilizing this

framework, one can evaluate the relative importance of different factors and design interventions.

Following strategy framework aids in assessing the workplace vulnerability for violent incidents and actions needed to prevent them.

1. Identifying the facility violence risk profile. Accomplished by reviewing the findings of[29]
    - "Most recent Joint Commission hazard vulnerability analysis (2015 standard: EM.01.01.01) and incident reports,
    - Occupational Safety and Health Administration (OSHA) logs and security reports.
    - The local crime statistics"

2. Utilizing trained health workers for reviewing equipment and technology-based security measures. Forming a team at the facility involving staff, security personnel, and local law enforcement to enhance the facility capability for dealing with a violent incident.

3. Improving case management for patients to reduce psychiatric emergencies.
    - Expand the outpatient care[37]
    - Better management of existing capacity. For example: Use of computerized bed management system – "bed Czars"[36]

4. Deployment of the crisis clinic staffed with a social worker and nurse. They will act as an additional resource during the maximum psychiatric ED occupancy.[36]

5. Telehealth services provide a good option for ED without psychiatrists and, during weekend and nights.[32,36]

6. A standalone ED completely dedicated to psychiatric patients providing patient evaluation, intensive treatment and observation". The goal of these services is to provide care for the acute symptoms and reduce hospitalization rates.[34,36]

7. Following OSHA's comprehensive list of fundamental guidelines for accessing and updating workplace violence prevention program. OSHA identifies five key elements for an effective program[29]

    - "management commitment and employee involvement; worksite analysis;
    - hazard prevention and control;

- safety and health training;
- Record keeping and program evaluation."

Taking appropriate actions on the findings of the above assessment will make the facility safer and makes the staff feel more secure.

8. Screening tools can be used for assessing psychiatric hospitalization for suicidal patients. Examples of validates screening tools are "Emergency Medicine Network's ED-SAFE Patient Safety Screener and the Columbia Suicide Severity Rating Scale (C-SSRS)"[35,38]

9. Ensure the effectiveness of the training program by involving all the staff members from physician to volunteers and recreating potential events according to the risk profile of the facility. Actual situations can be imitated by role play to teach defensive maneuvers and restrain techniques. Staff training and awareness are critical components for ensuring workplace safety.

10. Hospital administrators should regularly conduct workshops as a source of open ended communication between the staff demonstrating their stand against any kind of violence and encouraging them for reporting every instance of violence.

11. Crisis debriefing after a violent event to review and process the event is an effective tool for providing emotional support to the staff and helps reduce time to get back to work. Post crisis management expert can also be used depending on the severity of the incident.

Community Based Mitigation Strategy for Violence in the ED

Hospitals work in collaboration with communities, region or state to develop strategies to eliminate psychiatric boarding through community based approaches-

1. Expansion of psychiatric outpatient services. Basic needs and prescription drugs can be managed through these service at a lower cost. This will increase accessibility to psychiatric as well as substance abuse care.[36]

2. Mental health provider shortage can be dealt by encouraging more students to join psychiatric residency. This can be achieved by loan repayment funding of medical students choosing psychiatric residency. This will increase the number of doctors and subsequently accessibility to care.[32]

3. The Affordable Care Act provides additional benefits to states by creating “health homes”. These homes provide integrated and coordinated primary care, behavioral health service, acute psychiatric care and long term care for patients suffering from chronic conditions.[36]

4. Developing community crisis services can be vital in providing 24/7 psychiatric emergency services. Other services can include “mobile crisis team, crisis residential services, crisis stabilization unit; voluntary emergency residential unit; crisis counseling unit”.[36,39]

Conclusion:

Emergency Departments are the safety net of the healthcare system. Maintaining safe environment for the delivery of services should be a priority for hospital administrators. With increase in the utilization of the emergency services by psychiatric patients, boarding is a big health delivery problem for both USA and Canada. Increased demand and stressful work environment poses a big question for the security of healthcare workers in Emergency Departments. Within the available limited capacity, restructuring the delivery model by providing safer waiting areas for psychiatric health patients is the need of the hour. Involvement of hospital leadership as well as adherence to all applicable regulatory guidelines is vital for carrying out positive changes for creating safer work environment and reducing the cases of workplace violence.

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