

## Epic Fail! Poor Neuropsychiatric Documentation Practices in Emergency Psychiatric Patients

Veronica Tucci<sup>1\*</sup>, Nidal Moukaddam<sup>2</sup>, Nilang Patel<sup>3</sup>, Larry Laufman<sup>1</sup>, Asim Shah<sup>2</sup> and W. Frank Peacock<sup>1</sup>

<sup>1</sup>Section of Emergency Medicine, Baylor College of Medicine, Houston, Texas, USA

<sup>2</sup>Menninger Department of Psychiatry and Behavioral Sciences, Baylor College of Medicine, Houston, Texas, USA

<sup>3</sup>Houston Northwest Emergency Department, Houston, Texas, USA

\*Corresponding author: Veronica Tucci, Section of Emergency Medicine, Baylor College of Medicine, USA, Tel: +1 713-970-7070; E-mail: [veronica.tucci@bcm.edu](mailto:veronica.tucci@bcm.edu)

Received date: June 02, 2016; Accepted date: June 25, 2016; Published date: July 02, 2016

Copyright: © 2016 Tucci V, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Abstract

**Background:** There is a strong association between mental illness and poor physical health. However, research indicates that the standard of physical examinations performed on patients with psychiatric illnesses is sub-optimal, falling short of recommended/expected assessments.

**Objective:** This study aimed to assess the completeness of the neurological and psychiatric examinations performed by emergency physicians in a level 1 trauma centre with a dedicated psychiatric emergency centre.

**Methods:** A retrospective chart review of 50 consecutive emergency psychiatric patients was performed. Each of the 50 patients had been "medically cleared" and deemed stable for transfer to inpatient psychiatry.

**Results:** The documented neurologic and psychiatric examinations were generally poor. Mood and affect were documented in less than 50% of cases. Suicidality was documented in less than 1/3 of the patients who presented with a chief complaint of suicidal ideation. Only one patient had a documented a mini-mental status examination. 16% of patients did not have their orientation status documented. More than half did not have a cranial nerve examination. Less than 25% had their gait or reflexes tested. 28% of patients had their strength tested and 12% had a sensory examination performed.

**Conclusions:** Most psychiatric patients are not receiving a thorough neuropsychiatric physical examination by emergency providers, an alarming finding deserving more scrutiny. Additional research is needed to ascertain which components of the neurological and psychiatric examination are the highest yield and would have the greatest impact patient care outcomes and disposition. Interdisciplinary consensus must also be reached on what constitutes an adequate examination for patients with varying severity of neuropsychiatric presentations (e.g., suicidal ideation, altered mental status, frank psychosis).

**Keywords:** Psychiatric patients; Neuropsychiatric; Psychosis; Hallucinations; Delusions; Medical clearance of psychiatric patient; Medical stability assessment; Screening examination; Medical documentation; Emergency psychiatry

### Background

The Centers for Disease control recently announced a 24% increase in the rate of suicide in the United States from 1999 to 2014 [1]. This statistic will not surprise many on the frontlines of American medicine. With limited resources for outpatient clinics and community services, patients with mental illness including depression/suicidal ideation, homicidal ideation, psychosis, (delusions and hallucinations) are often left to suffer the ravages of their disease until they acutely decompensate. When their condition worsens, millions are left with nowhere to turn except their local Emergency Department (ED) for stabilization and coordination of care. At that time, patients may get admitted into psychiatric inpatient units if they have deteriorated enough.

Psychiatric inpatient treatment teams rely on the diagnostic evaluation performed by the emergency physician (EP) and typically require that EPs perform a medical clearance or stability assessment. Depending on the patient's history and physical examination, ancillary testing (e.g., electrocardiogram, laboratory testing) may also be required as part of this assessment. Medical clearance/assessments are designed to uncover any medical problems that may be contributing to or confounding the patient's psychiatric symptoms. The medical clearance process should also address the patient's chronic medical problems (e.g., insulin dependent diabetes, hypertension) and ensure that the patient may be safely transferred to an inpatient facility.

In 2006, the American College of Emergency Physicians (ACEP) published a clinical policy on medical clearance, issuing a level B recommendation to providers to base the diagnostic evaluation on the patient's history and physical examination and in alert and cooperative patients with normal vital signs and a non-contributory physical examination that routine laboratory testing is relatively low yield and not recommended. Unfortunately, when patients presents with neuropsychiatric symptoms, their histories may be of limited utility. When a patient's history is limited or unreliable, the examination is the

next key step in the medical stability assessment. A thorough examination can reveal many underlying medical conditions that may be responsible for or worsening the patient's neuropsychiatric presentation. In the absence of a solid physical examination, clinicians are forced to rely on more "objective" measures such as laboratory testing.

### **Medical Clearance: the Interface of Psychiatry with Other Specialties**

In patients presenting with purely psychiatric complaints, why are these assessments even necessary? Simply put, psychiatric patients have a lifespan that is eight years shorter than the general population and have a higher incidence of illness and injury [2-4].

The reduced life expectancy for psychiatric patients is multifactorial and includes both patient and physician factors. Adherence with psychiatric treatment regimens, which are often lifelong, is poor, particularly when psychiatric symptoms start to relent and patients mistakenly think they are "cured". Further, because of the inability of the severely disturbed psychiatric patient to provide accurate historical details, report symptoms objectively or even realistically assess their own problems, the usual patient-physician relationship is distorted, and treatment may be delayed or not given.

The medical clearance issue is compounded by global system-based issues including the separation of mental health services from the delivery of other medical services and treatment [5]. In this case, physicians may play a role through the minimization of patient complaints or incorrectly attributing medical issues to psychiatric disease. Negative feelings, (countertransference) represent another dimension of the physician-psychiatric patient relationship which can contribute to inadequate clearance of the psychiatric patient, even for those physicians with limited interaction with the patient [6].

The studies summarized below illustrate the scope of this issue, highlighting a continuing trend of poor assessment of patients with both psychiatric and medical issues.

One recent study found that 30% of patients admitted to the inpatient psychiatric hospital were not examined on admission or within the first twenty four hours of hospitalization; moreover, even after intervention and the development of a documentation tool, 25% of patients were still not being examined [7]. Another retrospective chart review in 2013 demonstrated that 13% of admitted psychiatric patients never received a physical examination. In reviewing the documentation of those patients who were examined using a 50 point grading system, the authors found that the mean score was 20, indicating an overall low standard of documentation [8].

Reeves et al. [9] found 2.7% of the elderly Veterans Administration patients in their study were admitted inappropriately to psychiatric wards and later diagnosed with delirium. Approximately 2/3 of those inappropriately admitted had a psychiatric history compared with slightly 26.7% of a similar cohort of thirty delirium patients who were correctly admitted to medical wards during the same time frame had a psychiatric history. This suggests that patients with psychiatric histories were more likely to have their symptoms attributed to their psychiatric condition than true underlying pathology but whether this attribution is solely due to physician bias is unknown as the type and severity of the underlying psychiatric illness for patients in this study was not reported.

In another retrospective case review by Reeves in 2000 [10], the files of 64 patients with medical emergencies admitted to a psychiatric unit were reviewed to determine the cause of the misdiagnosis. Severe alcohol and drug intoxication (34.4%) or withdrawal (12.5%) accounted for a substantial proportion of misdiagnosed patients. The authors found that inadequate physical examination (43.8%) and failure to obtain available history (34.4%) were also prominently featured [11].

As seen from the previous research above, unlike medical wards where patients are supposed to receive daily physical examinations, a substantial number of patients admitted to inpatient psychiatric units often have only one physical examination, the one conducted in the ED. When an emergency physician performs a poor or inadequate physical examination on an emergency psychiatric patient, it erodes the confidence in the quality of examinations provided by members of the specialty as a whole. Such poor examinations have also led inpatient psychiatrists to rely on and require more on "objective" measures including broad ancillary testing before patients are accepted to inpatient units.

If an EP performs an inadequate exam, the patient may be misdiagnosed and improperly cleared for inpatient management. If the patient is suffering from a medical condition such as delirium, the patient's condition may deteriorate causing significant morbidity and even mortality. Death on an inpatient psychiatric ward is the nightmare of every inpatient psychiatrist. The purpose of this study was to examine documentation of the neurological and psychiatric examination of patients presenting to the ED with potentially psychiatric chief complaints; specifically, the number of elements of each examination.

### **Methods**

We reviewed the electronic medical records (EMR)/charts of consecutive medically cleared psychiatric patients over the course of a three day weekend in 2015 as part of a quality improvement project. The Harris Health System utilizes Epic for its EMR. Patients were classified as emergency psychiatric patients and included in the study if during the course of their ED stay they presented or were diagnosed with altered mental status, psychosis, agitation, aggressive behaviour, bizarre behaviour, suicidal ideation, homicidal ideation or any combination of the above diagnoses.

Emergency psychiatric patients were seen by nine different teams in the Emergency Department. These consisted of thirteen attending physicians, thirteen senior residents (PGY-3 or PGY-2) and thirty-four interns (PGY-1), for a total of sixty physicians. In each case, the initial history and physical examination was performed by an intern. The average length of stay in 2015 for psychiatric patients who were discharged from our facility was approximately 15 hours and the average length of stay for patients ultimately admitted to an inpatient psychiatric unit for further treatment exceeded 30 hours. As a result, patients were likely the responsibility of multiple ED teams during their stay.

The senior resident and attending physician on each team were expected to perform a separate, independent examination of the patient and document their examinations, including any additions to or discrepancies with the intern's examination. If there were no discrepancies, the attending physicians added a statement attesting to the findings as documented by the interns. Senior residents were also encouraged to document a similar attestation if their history and

physical examination mirrored that which had been obtained by the intern.

Optimal examinations should include documentation of both a psychiatric and neurologic examination. The components of psychiatric examination should include: 1) Mood; 2) affect; 3) the presence of suicidal ideation and/or detailed plan for suicide, the presence of homicidal ideation and/or plan for homicide, psychosis (paranoia/delusions, hallucinations) 4) Judgment/insight; 5) Short term and long term memory/recall; and 6) If applicable and available, a formal Mini-mental status examination (MMSE). Alternatives such as the Brief mental status examination and Quick Confusion Scale may be free-texted but are not part of the pre-formed EPIC template. In our study, the MMSE was part of the Epic template, but as it is under copyright, may not be usable in all settings without proper permission. The components of the neurologic examination should include: 1) Alert and Oriented status; 2) Glasgow Coma Score; 3) Cranial Nerves; 4) Sensory; 5) Motor including strength, tone, atrophy, tremor, seizure; 6) Coordination including Rhomberg and Gait; 7) Deep tendon reflexes.

## Results

The electronic medical records of fifty (50) consecutive psychiatric patients who had been medically cleared were analyzed with respect to the quality of the neuropsychiatric examination. There was not a single senior resident who documented an independent history or physical examination or attestation of the intern's examination. In each case, the attending attested to the documentation as written by the intern without modification or documentation of any discrepancies.

The elements documented for both the psychiatric and neurologic examination is listed on Tables 1 and 2. With respect to the elements of the psychiatric examination, physicians failed to document the patient's mood and affect in over half of the cases. Physicians failed to document suicidality in almost 2/3 of the patients who presented with a chief complaint of suicidal ideation as shown on Figure 1. Only one provider documented a mini-mental status examination as shown on Figure 2. There were no free text portions for either the neurological or psychiatric examinations.

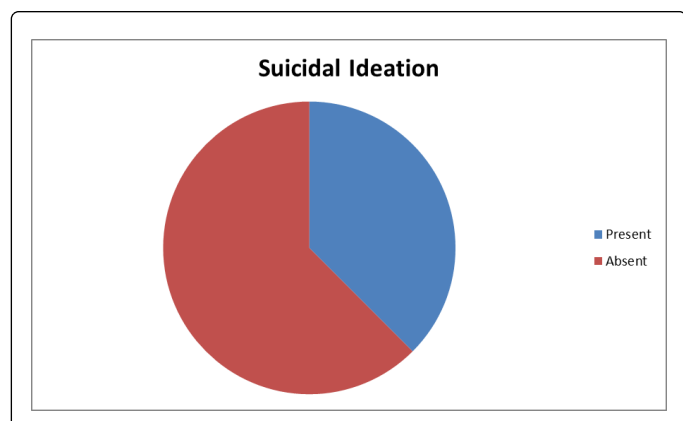
Chief Complaint	N	Mood	Affect	SI/HI/ paranoia	Judgement	Memory	MMSE
Suicidal Ideation	16	10	9	6	6	3	0
Bizarre Behavior	9	5	5	4	4	3	1
Psychosis	8	2	2	3	3	1	0
Altered Mental Status	3	2	2	1	1	1	0
Agitation	2	0	1	0	0	0	0
Homicidal Ideation	2	0	0	2	0	0	0
Suicidal Ideation, Agitation	2	1	1	0	1	1	0
Suicidal Ideation, Homicidal ideation	2	1	0	2	1	1	0
Suicidal Ideation, Psychosis	2	1	1	1	1	0	0
Aggressive Behavior, Agitation	1	0	0	0	0	0	0
Psychosis, Bizarre Behavior	1	0	0	1	0	0	0
Psychosis, Homicidal ideation	1	0	0	0	0	0	0
Psychosis, Suicidal	1	1	1	3	1	0	0
Total	50	23	22	21	18	10	1

**Table 1:** Documented psychiatric examination components.

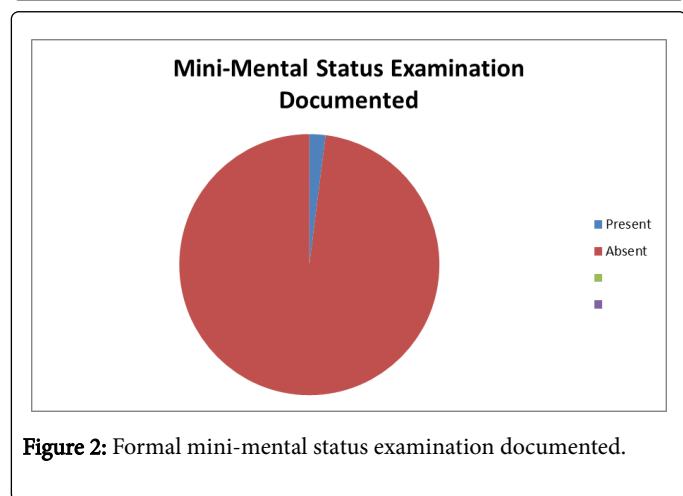
Chief Complaint	N	A&Ox3	CN exam	Motor Exam	Gait/DTRs	Sensory	Cerebellar / Rhomberg	GCS
Suicidal Ideation	16	14	7	4	4	2	3	2
Bizarre Behavior	9	7	5	6	4	2	1	0
Psychosis	8	5	5	1	0	1	0	0
Altered Mental Status	3	2	0	0	0	0	0	0
Agitation	2	2	1	0	0	0	0	0
Homicidal Ideation	2	2	0	1	1	0	0	0

Suicidal Agitation	Ideation,	2	2	1	0	0	0	0	0
Suicidal Homicidal ideation	Ideation,	2	2	2	0	0	0	0	1
Suicidal Psychosis	Ideation,	2	2	1	1	1	1	1	0
Aggressive Behavior, Agitation	Behavior,	1	1	0	0	1	0	0	0
Psychosis, Bizarre Behavior	Behavior	1	1	0	1	0	0	0	0
Psychosis, Homicidal ideation	Ideation	1	1	0	0	0	0	0	0
Psychosis, Suicidal		1	5	0	2	0	0	0	0
Total		50	42	22	14	11	6	5	3

**Table 2:** Documented neurologic examination components.



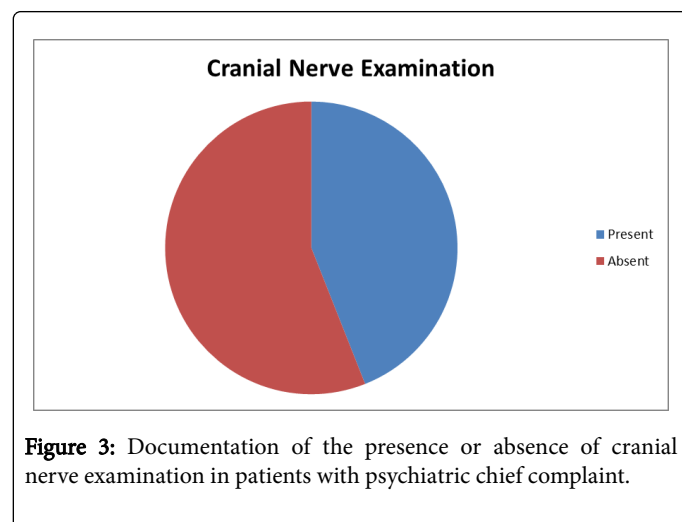
**Figure 1:** Documentation of the presence or absence of suicidal ideation in patients presenting with suicidal ideation as a chief complaint.



**Figure 2:** Formal mini-mental status examination documented.

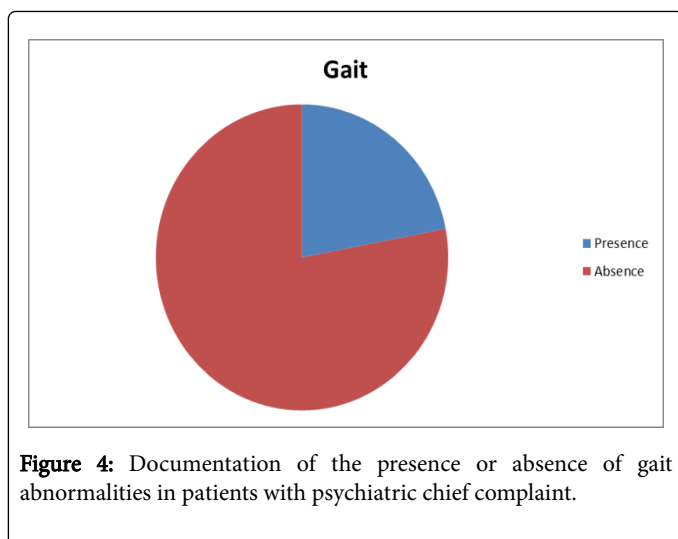
The documentation of the neurologic examination was equally limited. 16% of patients did not have their orientation status

documented. More than half did not have a cranial nerve examination as shown on Figure 3. Less than 25% had their gait or reflexes tested as shown on Figure 4. Finally, only 28% of patients had their strength tested and 12% had a sensory examination performed.



**Figure 3:** Documentation of the presence or absence of cranial nerve examination in patients with psychiatric chief complaint.

While the ED teams did document transition of care and reassessment notes for most of the patients in this review, there was no reassessment note in the 50 reviewed charts that documented a new physical examination, even when medications or restraints were necessary to manage acute agitation. The reassessment notes documented by providers were limited to a mention of ancillary testing and patient placement/disposition.



**Figure 4:** Documentation of the presence or absence of gait abnormalities in patients with psychiatric chief complaint.

## Discussion

We found that emergency physician documentation of neurologic and psychiatric status in patients with mental illness was poor, and physical examination reassessments were not documented despite long ED lengths of stay. Although the lack of documentation does not equate with the lack of evaluation, as physicians could have performed undocumented examinations, it is likely that some patients had only minimal psychiatric and physical evaluation. It must be considered that the implications of our current practice include the possibility of missed non-psychiatric medical illness because the failure to search for potential disease will ensure that we will not find any.

The authors know of no adverse outcomes or consequences of these poor examinations, but this was not a specific goal of this study. As psychiatric patients die of clinical manifestations of medical disease, the lack of evidence of a medical exam can be nothing but concerning. Specific gaps in assessment are problematic, e.g. the failures to document gait stability. Most inpatient facilities have so-called exclusionary criteria apart from the medical clearance process and generally require that patients can perform their activities of daily living (including walking to the restroom without assistance). These findings represent an opportunity for improvement. Moreover, any abnormalities are identified on examination (such as abnormal vital signs) should be promptly addressed. The medical clearance process at our institution does not permit a patient to be considered medically cleared with abnormal vital signs (including elevated heart rate, systolic blood pressure >180 mm Hg or diastolic blood pressure >100, elevated temperature etc.) but other EDs may not have those rules in place and this could impact care.

In 1990, Drs. Riba and Hale identified multiple deficiencies in the physical examinations performed in the ED on medically cleared patients. In this study, the authors noted that 8% of cases had no physical examination performed [12]. Tintinalli et al. performed a similar study performed in 1994 and found no mental status examination documented in 56% of patients. Compared with the previous literature, our study showed some improvement in alert and oriented status documentation only, accompanied by a continued lack of mental status examination (either a mini-mental status examination or document an alternative).

ACEP recommends that emergency psychiatric patients receive a focused history and physical examination during their medical assessment. The issue of whether patients with mental illness but no physical complaints should be subject to routine laboratory assessment is hotly debated, but a study performed by Janiak et al published in 2012 supports ACEP's policy that there is no need for routine medical screening labs. Only one patient had an abnormal laboratory study that would have impacted disposition [13].

Consequently, patients can be medically cleared for inpatient admission by emergency physicians who perform an appropriate history and physical examination. This begs that question of what an appropriate history and physical examination is, and whether it actually done? Our study supports the notion of this goal not having been attained. This, patients with mental illness receive no lab work, but also a cursory examination.

A commonly cited obstacle for such cursory interviews/examinations is the generally held belief that psychiatric patients cannot provide an adequate history. However, Olshaker et al. [14] called that idea into question in their 1997 retrospective observational analysis. They concluded that for patients with medical problems (19% of their population), the patient's history was 94% sensitive at identifying common medical conditions and physical examinations were only 51% sensitive, abnormal vital signs were 17% sensitive and laboratory results were 20% sensitive. The study also showed a negative predictive value of 98% for patients who denied alcohol use when compared to positive blood ethanol results.

As we were not present for the initial interviews of the patients contained in our study and did not interview any of the patients subsequently, we chose not to address any potential inadequacies reported in the patient's history and focused our chart review on the neurologic and psychiatric examinations. We felt that the neuropsychiatric examinations were likely to be high yield in determining whether the patient's symptoms had an underlying medical etiology for their symptoms. Additionally, as these examinations are traditionally more time and labour intensive, they would be more likely to demonstrate deficiencies. This is not to say that other portions of the physical examination (cardiovascular/pulmonary) are not valuable and should not be performed. Others have performed similar studies.

There has not been any research regarding which components of the neurologic and psychiatric examination must be included when examining an emergency psychiatric patient and whether the required elements of the examination might differ in patients presenting with suicidal ideation from those presenting with psychosis or hallucinations. The authors would recommend erring on the side of caution as the emergency physician's initial examination during the medical clearance process is likely the only one that the patient will receive. We provide examples of the ideal neuropsychiatric examination in Figure 1. However, we recognize that physicians in a busy ED may not be able to perform the ideal examination on every patient. Moreover, patients with no medical complaints or concerning history may not warrant as thorough examination as the one contained. To that end, we recommend adopting and documenting the examination as a minimum standard for most patients with known psychiatric history and for whom, a more focused assessment would be acceptable.



## Limitations

This study has several limitations. By virtue of being a retrospective chart review, our results, despite their concerning nature, can only be considered as hypothesis generating. Further, our sample size is limited. However, because of the very small numbers of patients we documented with any type of exam, it is suggestive that larger reviews would not identify significantly different findings.

Additionally, there is a spectrum in the severity of neuropsychiatric presentations. There is no interdisciplinary consensus on what constitutes an adequate or focused the extent of examination needed for each type of presentation (e.g., is an examination of gait or deep tendon reflexes really necessary in a patient complaining solely of suicidal ideation).

## Conclusions

We found documentation of neurologic physical and psychiatric examinations to be inadequate in emergency physician documentation of patients presenting to the emergency department with a potentially psychiatric complaint. The implication for optimal care, disposition and outcomes will need clarification by future interdisciplinary study and consensus building.

## References

1. Curtin SC, Warner M, Hedegaard H, (2016) "Increase in Suicide in the United States, 1999–2014". NCHS.
2. Druss BG, von Esenwein SA, Compton MT, Zhao L, Leslie DL (2011) Budget impact and sustainability of medical care management for persons with serious mental illnesses. *Am J Psychiatry* 168: 1171-1178.
3. Kisely S, Sadek J, MacKenzie A, Lawrence D, Campbell LA (2008) Excess cancer mortality in psychiatric patients. *Can J Psychiatry* 53: 753-761.
4. Dickerson FB, Stallings C, Origoni A, Boronow JJ, Sullens A, et al. (2008) Predictors of occupational status six months after hospitalization in persons with a recent onset of psychosis. *Psychiatry Res* 160: 278-284.
5. Lawrence D, Kisely S (2010) Inequalities in healthcare provision for people with severe mental illness. *J Psychopharmacol* 24: 61-68.
6. Moukaddam N, Tucci V, Galwankar S, Shah A (2016) In the Blink of an eye: Instant Countertransference and its application in modern healthcare. *J Emerg Trauma Shock* 9: 95-96.
7. Pettipher A, Ovens R (2015) The psychiatric inpatient physical health assessment sheet (PIPHAS): a useful tool to improve the speed, efficiency, and documentation of physical examination in new psychiatric inpatients. *BMJ Qual Improv Rep*.
8. Murray J, Baillon S (2013) Case series of physical examinations on psychiatric inpatients: Influence of a structured form on the quality of documentation. *J Ment Health* 22: 428-438.
9. Reeves RR, Pendarvis EJ, Kimble R (2000) Unrecognized medical emergencies admitted to psychiatric units. *Am J Emerg Med* 18: 390-393.
10. Reeves RR, Parker JD, Burke RS, Hart RH (2010) Inappropriate psychiatric admission of elderly patients with unrecognized delirium. *South Med J* 103: 111-115.
11. Reeves RR, Perry CL, Burke RS (2010) What does "medical clearance" for psychiatry really mean? *J Psychosoc Nurs Ment Health Serv* 48: 2-4.
12. Riba M, Hale M (1990) Medical clearance: fact or fiction in the hospital emergency room. *Psychosomatics* 31: 400-404.
13. Janiak BD, Atteberry S (2012) Medical clearance of the psychiatric patient in the emergency department. *J Emerg Med* 43: 866-870.
14. Olshaker JS, Browne B, Jerrard DA, Prendergast H, Stair TO (1997) Medical clearance and screening of psychiatric patients in the emergency department. *Acad Emerg Med* 4: 124-128.