



EM CASES SUMMARY

Episode 85 – Medical Clearance of the Psychiatric Patient

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We Shouldn't be Calling it Medical Clearance of the Psychiatric Patient!

Medical clearance isn't a term to represent the absence of medical issues, but rather the ***absence of medical instability or a medical condition causing or contributing to the behavioural presentation.***

Since it's not possible to screen and diagnose all potential concurrent medical illnesses in the ED, some experts prefer the terms "***evaluation for medical stability,***" or "***focused medical assessment of the altered patient***". When patients are labelled as "psychiatric" or "functional", we tend to bias our assessment of them.

General Approach to Patients Presenting with Behavioural Complaints

Overall, the approach to patients presenting with behavioural complaints should be ***the same as the approach to those with general medical conditions:*** ABCs, a thorough history (including collateral history) and physical, *selected* tests.

History and physical exam remain the main stay of evaluation; ***the minimum data set*** should include full vital signs, history including history of mental illness, medications, substances, mood and thought content, mental status exam and further examination as indicated by presentation, vital signs and history.

A 1997 study by Olshaker et al. of 345 patients presenting to an ED with psychiatric complaint, a **complete history** was the most sensitive for identifying a common medical condition at 94% compared to physical and lab tests.

If you are unable to obtain a history from an altered patient, the risk for missing an important medical illness goes up significantly.

Historical Clues to Help Differentiate Organic vs Psychiatric Illness

Patients who present with altered level of awareness or a dramatic change in their behaviour often end up getting extensive expensive workups that could be avoided by asking patients a few simple questions. These questions may help reveal an obvious cause for their

altered behaviour early on in your assessment, including Somatoform Disorders:

Where do you live?

Who do you live with?

How do you support yourself?

Do you have any outstanding charges you're facing?

Have you ever been in jail?

What substances do you regularly use?

Where were you just before you came to the ED?

It is imperative that you take the time to ask these questions and give the patient time to answer them, which may seem at face value to take too much time in a busy ED, but will minimize the chances of missing a significant medical diagnosis as well as prevent a time-consuming extensive work-up later on and ultimately is the most efficient way to arrive at a diagnosis.

Factors favouring psychiatric illness

- history of psychiatric illness
- younger age
- onset over weeks to months

Factors favouring organic illness

- no history of psychiatric illness
- older age (>40)

- onset over hours-days
- complaint of headache
- any recent new medication

A detailed extensive mental status exam is not necessary in every patient with a behavioural problem. A study out of the Annals of EM showed that ***The Quick Confusion Scale*** is as reliable as a full Mini-Mental Status Exam to reveal an altered level of awareness that may help pick up organic pathology:

The Quick Confusion Scale

What month is it?

Repeat phrase and remember it: "John Brown, 42 Market Street, New York"

About what time is it?

Count backward from 20 to 1

Say the months in reverse

Repeat the memory phrase

The 3 key elements of the mental status exam are orientation, memory and judgment which can often be gleaned from the patient encounter by an experienced EM provider without a validated scale.

Physical Exam Clues to Differentiate Organic vs Psychiatric Illness

As always, **vital signs are vital!** Any abnormality in vital signs should be addressed and accounted for.

Hypoglycemia can mimic many psychiatric illnesses from catatonic schizophrenia to severe depression as should be considered as “the 6th vital sign”.

Blood glucose (ABC Don't Ever Forget Glucose)

Look for **fluctuating level of awareness** as it is rare in isolated psychiatric illness, and often signifies delirium and an underlying toxin, metabolic abnormality or CNS lesion.

Scrutinize the patient's eyes – any abnormality in gaze, nystagmus, pupillary dilation etc may signify an organic pathology.

Dr. Steinhart's trick of the trade for assessing nuchal rigidity from the end of the bed: *While the patient is standing, have them fixate on a coin and then toss the coin on the floor at their feet. If they flex their neck through a full range of motion to look down at the coin, it makes it less likely that they have meningismus.*

Ask the patient to **protrude their tongue**. If you see a laceration, think about a post-ictal state as a cause for their altered behaviour.

Take a moment to **look up the nares** of the patient's nose; you might be surprised to find cocaine, crushed bupropion or any number of toxins that the patient has insufflated.

Visual hallucinations usually point to an organic illness. Generally speaking, auditory hallucinations are more indicative of a psychiatric illness where as visual hallucinations are more indicative of an organic illness. While about 15% of patients with schizophrenia are said to experience visual hallucinations, these tend to occur in those schizophrenics with severe illness *in addition to* auditory hallucinations.

Which Psychiatric Patients Require Screening Lab Tests or CT Scan of the Head

Historical features

- No prior psychiatric history
- Advanced age
- Acute psychosis or delirium
- Began new medication
- Seizure just prior to change in behavior
- Headache

↓ No

Physical examination

- Abnormal vital signs (check temperature)
- Altered level of consciousness
- Abnormal neurologic exam
- Signs of immunosuppression or IV drug use
- Evidence of a toxidrome
- Evidence of infection or physical distress

↓ No

Mental status examination

- Disorientation
- Visual hallucinations

↓ No

No lab test screening required

There is no evidence-based list or panel of investigations or order set that can be applied to all psychiatric patients requiring medical clearance.

ACEP recommends screening tests for:

1. patients who have new-onset psychiatric complaints,
2. those with abnormal vital signs, the elderly, and
3. those with a known or suspected co-morbid condition

However, our experts recommend, that in the patient who presents with classic uncomplicated schizophrenia with normal vital signs and an otherwise normal physical exam (even if it is a first time presentation), a CT Head is not indicated as the yield of a clinically significant finding on a CT Head in this patient population was found in a preliminary study in 3 Ontario hospitals to be 1 in 300. Another review of 5 studies from 2009 showed that of 384 CT and 184 MRI scans of first episode psychosis patients the diagnostic yield was only 1.3% for CT and 1.1% for MRI scans.

CT is clinically indicated in psychiatric patients with altered mental status, trauma, immunodeficiency, or focal neurological findings. Urine drug screens are not required routinely in the psychiatric patient. Most patients, if asked in a non-accusatory manner, will tell you what drugs they have recently taken. Olshaker found that the reliability of patient self-reported drug use had a sensitivity of 92% and specificity of

91%. The reliability of self-reported alcohol use was 96% sensitive and 87% specific. In addition, urine drug screens have many false positive and negatives which can be misleading.

ACEP guidelines on routine urine drug screen

s for psychiatric patients: “Routine urine toxicology screens for drugs of abuse in patients who are alert, awake, and cooperative do not affect ED management and should not be performed as part of the ED assessment. Additionally, toxicology screens obtained in the ED for use by the receiving psychiatric facility or service should not delay patient evaluation or transfer. (Level C recommendation).”

Pitfalls in the medical assessment of psych patients

1. *Incomplete history, including failure to obtain ancillary information.*
2. *Cursory physical without full vitals, mental status exam, brief neurologic exam and assessment for toxidromes.*
3. *Premature closure of a psychiatric diagnosis.*
4. *Indiscriminate lab and imaging testing.*

Literature Summary on Routine Lab Test Screening of Psychiatric Patients in the ED

Paper #1: 1997 Academic EM – screening without routine lab testing would have missed 2 out of 352 asymptomatic hypokalemia patients. Most medical problems and substance abuse were identified by abnormal vital signs and history and physical examination.

Paper #2: 2000 Journal of EM – in this retrospective chart review of 212 patients none had positive screening lab results. The authors concluded that “a patient who denied current medical problems and who presented with a primary psychiatric complaint, documented psychiatric history, stable vital signs, and normal physical examination findings could be referred for psychiatric evaluation without additional testing.”

Paper #3: 2012 Journal of EM – in this retrospective chart review of 519 patients there was one case in which an abnormal lab value would have changed ED management or disposition.

Paper #4: In a study by Hall, 100 patients admitted to a psychiatric facility all had electrolytes, electrocardiogram, electroencephalogram, urine drug screen, and urinalysis performed. Of the 100 patients, 46% had unrecognized medical illnesses and 80% of those needed treatment, however the vast majority of these were trivial non-urgent illnesses.

Paper #5 In a retrospective study performed by Tintinali and colleagues, 298 charts of emergency voluntary psychiatric admissions were reviewed. Twelve (4%) of those patients had an acute medical condition that required intervention. In each of these cases, the history and physical was deficient and did not identify the acute medical condition.

Paper #6 in a retrospective observational study by Olshaker and colleagues in which the history and physical exam had a sensitivity of 94% and 51%, respectively in identifying medical illness in psychiatric patients. Laboratory testing had a sensitivity of only 20%.

3 Main Take Home Points in Medical Clearance of the Psychiatric Patient

1. Approach to psychiatric patients should be the same as your approach to any medical patient – an adequate history and physical is essential.
2. Know which patients are at high risk for an organic cause of their behavioural presentation so that you have a heightened awareness for organic pathology in these patients.
3. There is no evidence for benefit of routine screening exams – tests should be done as you would a medical patient – pertinent to the presenting complaint and findings on a good history and physical.

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