

Inpatient treatment planning: Consider 6 preadmission patterns

Reduce assessments, lab tests, and diagnostic confusion

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Emergency admissions to psychiatric units usually are hectic, with ample opportunities to miss valuable clinical information. In these circumstances, failing to identify key features of the patient's preadmission history can waste time and misinform treatment.

In our experience, psychiatric inpatients show characteristic trajectories and can be grouped into 6 categories based on preadmission course. Identifying which category best describes a particular patient can help direct your assess-



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ment and predict appropriate treatment (*Table 1, page 24*).

WHY THIS SYSTEM?

In busy academic psychiatry departments—with rotating inpatient attending physicians and



Table 1

Treatment planning at psychiatric admission: 6 patient categories*

Patient category	Prior admission?	Outpatient treatment adherence?	Stressful life event?	Progressive deterioration?	Comprehensive workup indicated?
1	No; first episode				Yes
2	Yes	No care			No; re-establish previously successful treatment, and promote adherence
3	Yes	Incomplete adherence			
4	Yes	Yes	Yes		No; provide psychosocial support to address stressful event
5	Yes	Yes	No	Yes	Yes
6	Malingering patients either have no psychiatric illness or have psychiatric illness and exaggerate symptoms for secondary gain				No; discharge (or do not admit) those without mental illness; provide psychosocial support for others

* These general categories are not intended to apply to all patients and do not consider predictors of length of stay such as diagnoses, presence of suicidal thoughts/plans, or behavioral disturbances.

multiple outpatient providers—inpatient teams need a treatment framework that will decrease redundant assessments, unnecessary laboratory exams, and diagnostic confusion. We developed the following guide for residents, medical students, and attending physicians who practice in our 20-bed inpatient unit in an urban public hospital, where beds are always at a premium.

No controlled data support this approach. It does not consider predictors of length of stay—such as diagnoses or if patients have suicidal thoughts or behavioral disturbances. This model can be used across a broad range of diagnostic, symptomatic, and behavioral presentations, however, and our residents have found it helps them organize inpatient care.

CATEGORY 1:
FIRST-TIME ADMISSIONS

Patients who never have had psychiatric treatment and are admitted to an inpatient unit usually are experiencing an index psychotic or mood episode. They represent a small fraction of all admitted patients but deserve the most comprehensive medical and psychiatric evaluation. The goal is to establish an accurate diagnosis, which will determine the treatment course.

Evaluation. Obtain a clinical history from the patient and from individuals with corroborating information. Do a comprehensive physical examination, and order a baseline laboratory evaluation, including a complete blood count with differential, comprehensive metabolic panel (CMP),

thyroid-stimulating hormone (TSH), and toxicology screen. Add other laboratory tests as indicated by the history and physical exam.

Always obtain brain CT or MRI for an atypical psychosis and probably even for a typical presentation of an index psychotic episode. CT and/or MRI are indicated if mental status, physical, or neurologic examinations reveal focal neurologic deficits.

Order an EEG if you suspect seizures—especially complex partial seizures—or metabolic encephalopathy. Order a lumbar puncture with cerebrospinal fluid analysis and culture if CNS infection is a possibility.

Neuropsychological tests.

Psychological testing may include personality tests such as the Minnesota Multiphasic Personality Inventory (MMPI-2) or Millon Clinical Multiaxial Inventory-III and rating scales and instruments to quantify symptom severity (*Table 2*).

Always administer a Mini-Mental State Examination (MMSE) to assess for cognitive impairment, and use the Blessed Dementia Scale (BDS) if needed.

For suspected delirium, consider the Delirium Rating Scale (DRS) or the updated version, DRS-98. Further neuropsychological testing may be indicated if the patient shows cognitive dysfunction, as may be seen in delirium or dementia (*Table 3, page 26*).

Table 2

How severe are psychiatric symptoms? Consider these rating scales

Symptom	Clinically useful instruments
Anxiety	Hamilton Anxiety Rating Scale
Bipolar mania	Young-Mania Rating Scale (Y-MRS)
Depression	Hamilton Rating Scale for Depression (HRSD) Beck Depression Inventory (BDI) Montgomery-Åsberg Depression Rating Scale (MADRS)
OCD	Yale-Brown Obsessive Compulsive Scale (Y-BOCS)
Psychosis	Brief Psychiatric Rating Scale (BPRS) Positive and Negative Syndrome Scale (PANSS) Scale for the Assessment of Positive Symptoms (SAPS) Scale for the Assessment of Negative Symptoms (SANS)
Overall symptomatology	Clinical Global Impressions (CGI) Scale

CATEGORIES 2 & 3:

READMISSION FOR NONADHERENCE

Without outpatient follow-up. Although inpatients are almost always referred for outpatient care after discharge, many do not keep even one outpatient appointment. Patients who have no outpatient follow-up after discharge are twice as likely to be rehospitalized the same year, compared with patients who kept at least one outpatient appointment.¹

With outpatient follow-up. Patients who relapse and are readmitted after a period of outpatient treatment probably account for the largest group of psychiatric inpatients. Reasons why outpatients become nonadherent² and relapse after a



Table 3

Tests for patients with cognitive dysfunction, as in delirium or dementia

Symptom domain	Neuropsychological tests
Attention and concentration	Trail Making Test, parts A and B Wechsler Adult Intelligence Scale (WAIS-III): verbal IQ subtests Boston Naming Test
Memory	Wechsler Memory Scale-III Three Words-Three Shapes memory test
Visual-spatial constructional ability	Rey-Osterrieth Complex Figure Test Benton Visual Form Discrimination Test WAIS-III performance IQ subtests
Executive function and abstract thinking	Wisconsin Card Sorting Test Stroop Color-Word Test WAIS-III similarities and comprehension subtests

Table 4

Factors that interfere with patient adherence to psychiatric treatment

- **Negative attitudes** of patient or family about medications, including fear of addiction or distress that medications are symbols of mental illness
- **Caregivers'** lack of cooperation with treatment planning
- **Concomitant** substance use
- **Medication** side effects
- **Dementia**
- **Poor insight** into illness
- **Complex** medication regimen
- **Persistent** psychosis

Source: References 3-10

period of stable remission are legion (*Table 4*).³⁻¹⁰

Restore what worked before. The first treatment goal for patients in categories 2 and 3 is to reestablish previously successful inpatient or outpatient treatment. Unfortunately, many psychiatric hospitalizations result in diagnostic reassessment and medication changes. Readmitted patients often do not require substantial inpatient diagnostic evaluation, and changing their previously successful psychotropics can be counterproductive.

Patients being readmitted often are less-than-honest about treatment adherence, so seek corroboration from family, case managers, other caregivers, or outpatient clinicians. Measuring blood levels of medications or hormones (such as prolactin) that are influenced by medications may help you gauge adherence.

Promote treatment adherence. After you re-establish treatment, the second goal is to promote future adherence. Contact the outpatient psychiatrist to explore the patient's involvement with outpatient care.

If the patient was nonadherent because of poor insight or misconceptions about the medication—such as fear of dependence, stigma of mental illness, or denial—educate the patient and family/caregivers. If patient and family education prove

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ineffective or are not possible, consider depot psychotropics.

For nonadherence caused by side effects, consider changing the dosage or rhythm of administration. Simplified dosing schedules might help. Pay close attention to drug-drug interactions with nonpsychotropic medications.

Because drug or alcohol abuse is a common reason for outpatient nonadherence,^{7,8} consider chemical-dependency treatment programs for patients with addictions or those whose nondependent substance use causes psychiatric relapse. **Links to outpatient care.** In an ideal system, the links between inpatient and outpatient treatment would be seamless. Many real world systems do not work as well, however. Too often patients are admitted and discharged before the outpatient doctor has heard of the admission.

Three inpatient interventions have been shown to more than triple the likelihood for successful linkage to outpatient care:

- communication between inpatient and outpatient clinicians about discharge plans
- patients starting outpatient programs before discharge
- involving family during the hospital stay.⁶

Investigate the therapeutic relationship between the patient and outpatient psychiatrist, and attempt to improve communication and trust. If that fails, refer the patient to another psychiatrist. In either event, the outpatient psychiatrist needs to be well-informed of the patient's progress and endorse outpatient treatment plans before the patient's discharge.

CATEGORY 4:

READMISSION AFTER STRESSFUL EVENT

Even in patients who have been completely adherent with outpatient treatment, a sudden

Table 5

5 motivations for psychiatric malingering

To avoid punishment for criminal behavior

To avoid military conscription or combat

To obtain financial gain for disability or lawsuits

To obtain drugs or "do easier time" while incarcerated

To gain hospital admission to avoid arrest or obtain free room and board

Source: Reference 11

stressful life event can exacerbate psychiatric symptoms and require inpatient care. Examples include:

- death of a family member
- departure of a trusted caregiver
- onset of an intercurrent medical illness
- loss of a job or other financial hardship
- loss of housing
- anniversary of a traumatic life event.

Most patients with serious psychiatric illness react with predictable anxiety, sadness, and/or worsening of psychosis. Those susceptible to using psychoactive substances may relapse

and worsen their symptoms.

Although we are trained to look for a "precipitating event" in formulating psychiatric illness, patients might be unable to talk about such preadmission changes. If this information is not readily available, symptomatic deterioration may be misinterpreted as treatment nonadherence, incorrect diagnosis, or other etiology.

Too often patients are discharged before the outpatient doctor has heard about the admission

continued



Table 6

5 clinical factors that suggest malingering

Absence of active or subtle signs of psychosis

Marked inconsistencies, contradictions

Patient endorses improbable psychiatric symptoms

- Mixed symptom profile (such as depressive symptoms plus euphoric mood)
- Overly dramatic
- Extremely unusual (endorses a strategic suggestion such as, "Do you believe that cars are a part of an organized religion?")

Patient is evasive or uncooperative

- Excessively guarded or hesitant
- Frequently repeats questions
- Frequently replies "I don't know" to simple questions
- Hostile, intimidating; seeks to control interview or refuses to participate

Psychological testing (SIRS, M-FAST, MMPI-2) indicates malingering

SIRS: Structured Interview of Reported Symptoms
M-FAST: Miller Forensic Assessment of Symptoms Test
MMPI-2: Minnesota Multiphasic Personality Inventory, Revised

Source: Reference 12

probably do not need to be changed.

Patients in this category typically do not need or benefit from diagnostic reassessment or comprehensive laboratory, radiologic, or psychological investigations. Even so, consider the possibility that the patient might be experiencing a comorbid medical illness, drug side effect, or other biomedical change, even in cases of an apparent intercurrent stressful event.

Inpatient treatment is supportive, encompassing grief work and individual and group therapy. Involve the social worker immediately to address adverse changes in the patient's income, financial status,

and residential circumstances.

Continue previous outpatient medications, and modify dosages if indicated by symptom severity. Patients in this group usually require only short hospital stays until the acute symptoms recede and they rebuild sufficient coping skills to address the new stressors.

Treatment goals. For a patient who has deteriorated because of a psychosocial change, the goal of admission is to address this stressor and return the patient to function. These patients do not require extensive medical or psychiatric assessment, and their previously successful psychotropics

Psychiatric inpatients fall into 6 discrete categories based on their preadmission clinical trajectory. An accurate preadmission history can help you identify each patient's category and provide appropriate assessment and treatment.

BottomLine

CATEGORY 5: **PROGRESSIVE DETERIORATION**

Patients who worsen despite adherence with outpatient treatment and have not experienced a new psychosocial stressor are difficult to treat. Similar to patients with an index psychotic episode, deteriorating patients require extensive re-evaluation of diagnosis and treatment trajectory going back several years.

As described for category 1 patients, perform an extensive physical and laboratory examination, psychological testing, and additional or specialized radiologic testing such as MRI, fMRI, SPECT, or (if possible) PET, as needed. Focus on the possibility of diagnostic reassignment and/or the presence of comorbidities. Seek clinical consultation, especially if academic specialty programs are available in the vicinity. Consultation from medical, neurology, and neuropsychology colleagues can help clarify diagnostic possibilities.

Unlike patients in categories 2, 3, and 4, deteriorating patients often require wholesale changes in medication management because:

- adherence with previous regimens has not produced ongoing remission
- illness is worse or progressive and requires a new or more intensive approach.

Hospitalization usually needs to be longer for intensive reassessment and to establish a new treatment regimen. Chronic hospitalization may be necessary for patients with severe treatment-refractory illness.

CATEGORY 6: MALINGERING

Resnick¹¹ characterized 5 motivations for malingering psychosis and probably mental illness in general (Table 5, page 29). Psychiatric malingerers fall into two categories:

- those who have no illness but fake one
- those who have mental illness but grossly exaggerate the intensity and gravity of symptoms for secondary gain.

Malingerers who have mental illness but exaggerate their symptoms to gain admission are more difficult to discern than those without illness, although Resnick and Knoll¹² identified clinical factors that suggest a person is malingering psychosis (Table 6).

In general, malingering patients should not be hospitalized. If malingering is discovered after admission, discharge those without illness. In

Related resources

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those with psychiatric illness, exaggerating symptoms may represent comorbid illness (especially Axis II disorders) or increased dependency because of a psychosocial change, such as loss of housing.

Address the latter with psychosocial support and social work/case management services, as with patients in category 4.

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