

Treating the acutely psychotic patient

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BACKGROUND Acute psychosis is a medical emergency that is responsive to medical treatment and has a significant risk of morbidity and mortality if untreated. It is a common presentation both in general practice and hospital emergency departments. With the shift of long term management of mental illness from psychiatric hospitals to the community in the past 20 years, general practitioners are increasingly involved in the short and long term management of psychotic patients.

OBJECTIVE To review contemporary assessment and management of acute psychosis with the emphasis on patient and practitioner safety, and the resources that are available for the management of psychotic patients.

DISCUSSION General practitioners should be able to safely assess acutely disturbed patients and diagnose acute psychosis and its potential causes. They should be aware of the alternatives for acute treatment. They should be conversant with the Mental Health Act and its use to ensure patient safety and with the medications that are used to treat acutely psychotic patients.

Case 1

David*, aged 20, was brought to his general practitioner by his mother because she was concerned about his recent behaviour. Over the preceding three months David had become increasingly erratic. He had sent emails to his employers accusing them of following him and spying on him. His mother said that he appeared fascinated by the television and his computer and spent hours sitting staring at both.

In a private interview with the doctor, David told the doctor he was a secret agent working for the government and that he got his orders from the voice of the president through the television and computer screens. Recently the voice had been telling him that he was being followed by spies and that he should get rid of them. Last night the voice from the computer told him that his parents were part of the conspiracy against him.

During the interview David did not make eye contact and looked over his shoulder frequently. The doctor calmly explained that he should go to hospital for help with his problems. However, David became agitated, refusing to go to hospital. The doctor left the room and called the ambulance and police. He then completed a Schedule 2 form,

indicating that David was mentally ill and there was significant risk he would harm himself or others. When the police and ambulance officers arrived, the doctor suggested to David he take some valium orally to calm him but the offer was declined. Midazolam 10 mg and haloperidol 10 mg intramuscularly were then administered with the assistance of the police and ambulance officers. David was taken to hospital where acute paranoid schizophrenia was diagnosed. After treatment David's condition stabilised and he was able to return to work, requiring daily antipsychotic medication.

Case 2

Antony*, aged 28, was taken by his partner to his GP because of an acute behavioural disturbance. He had been previously well. There was no family history of psychiatric illness.

Antony had a responsible position in a stock-broking firm and had been performing well at work. Over the previous year he had been using amphetamines at parties every weekend. On the weekend before the visit he used his usual amphetamines and took several lines of cocaine and two ecstasy tablets. His partner said that he first became agitated and then withdrawn. Antony then became

preoccupied with looking out the window and watching the walls at home and did not go to work.

In a private interview, Antony told the doctor that his neighbours wanted to steal his money and had tried to break into his house over the weekend. He did not maintain eye contact and looked around all the walls of the room.

He also told the doctor there were red insects running up and down the walls and the insects had entered his body through his mouth and were running around under his skin. He denied any intention of harming himself or others.

Physical examination was normal. Antony was commenced on treatment with an oral antipsychotic agent. The doctor offered the patient valium 10 mg and an olanzapine wafer 10 mg orally which he took. After an hour he was relaxed and comfortable in his partner's company.

The doctor diagnosed a drug induced psychosis and prescribed olanzapine 10 mg daily, with close specialist follow up including drug and alcohol counselling. Over the next week the psychotic symptoms settled and the patient returned to work. Antony's psychosis has resolved and he remains drug free.

* Names have been changed to protect anonymity.

Definition of acute psychosis

Psychosis is a disorder of thought and behaviour that is characterised by the presence of one or more of the following:

- hallucinations - false perceptions of the senses. These may be auditory or visual, less often olfactory or tactile,
 - delusions - false beliefs held with absolute conviction but not tenable in terms of sociocultural background,
 - thought insertion/broadcasting/withdrawal, or
 - thought disorder - disorganised speech patterns.
- These positive symptoms may be associated with:
- negative symptoms - blunted affect, reduced amount of speech, reduced energy, drive, and social involvement,
 - atypical symptoms - perplexity, instability of mood, or
 - symptoms which are a response to the upheaval and emotional turmoil of the psychotic experience - anxiety, panic, somatisation.

The patient may be agitated and garrulous or quiet and withdrawn. Self harm, suicide, aggressive behaviour, and violence toward others occur with

increased frequency during psychotic episodes. Treatment aims to minimise the risk of harm and restore normal mental function.

Differential diagnosis in acute psychosis

The great majority of presentations with acute psychosis are because of a new psychiatric disease (most often schizophrenia), or an exacerbation of pre-existing psychiatric disease, or are drug induced. Medical causes of psychosis, while uncommon, should be considered when the presentation does not fit the criteria for acute psychiatric disease.

Psychiatric disease

- initial episode or acute exacerbation of schizophrenia
- manic episode in bipolar disorder
- as part of a unipolar affective disorder (psychotic depression).

Organic disease²

- substance induced (intoxication, idiosyncratic effect, or withdrawal). The drug may be recreational (alcohol withdrawal, hallucinogens, amphetamines, cocaine) or therapeutic (corticosteroids, anticholinergic drugs, L-dopa)
- secondary to a general medical condition including
 - infections (encephalitis, meningitis, malaria, syphilis, HIV)
 - neurological disorders (temporal lobe epilepsy, Parkinson's disease, Wilson's disease, Alzheimer disease, lupus cerebritis, Huntingdon's disease, multiple sclerosis)
 - endocrine disorders (hyper- and hypo-thyroidism, hyper- and hypo-parathyroidism, Cushing's disease, Addison's disease)
 - nutritional deficiencies (Korsakoff's psychosis, beri beri, pernicious anaemia)
 - central nervous system tumours, heavy metal exposures (mercury, manganese, thallium, arsenic).

Clinical clues that suggest an organic (nonpsychiatric) cause for acute psychotic symptoms² include:

- atypical age of onset (age <13 or >40 years)
- sudden onset (hours to days vs. weeks to months)
- disorientation (vs. scattered thoughts)
- decreased consciousness

- history of substance abuse, although mentally ill patients may use recreational drugs as self medication for distressing psychiatric symptoms
- visual (vs. auditory) hallucinations, and
- presence of abnormal vital signs (fever, tachycardia) or abnormal physical examination or investigation results.

The optimal setting for safe assessment

Mentally disturbed patients are unable to tolerate noise and are easily distracted.³ To minimise risk and optimise assessment, the interview should take place in a private, quiet room away from distractions and preferably containing nothing that could be damaged or used as a weapon. The presence of a third person causes a distraction and should be avoided. The patient should feel secure. The interviewer should try to impart an air of empathy, sitting at the same level as the patient, using a quiet and calm voice, and conveying a warm and caring attitude with genuine concern for the patient and their problems. Deception should be avoided and promises and assurances should not be made unless they are reasonable and able to be kept.⁴ The interviewer should sit close to an open door, should sit at right angles to, rather than directly opposite, the patient, and should not allow the patient to come between them and the door.

The interview

The purpose of the interview is to gain enough information to allow the doctor to:

- make the diagnosis of acute psychosis and gather information about its cause
- assess the risk of harm
- detect serious physical illness
- assess the level of social functioning, and
- formulate a treatment plan.

The interview should be controlled by the interviewer while allowing the patient time to express their thoughts. Initial discussion should be nonconfronting and aimed at establishing rapport. The history should follow the usual structure and include factual questions about identity, past and family physical and mental health, smoking, alcohol and drug use, forensic history, and history of the presenting illness.

Open-ended questions should be used and the patient should be encouraged to speak and explain their concerns. It is better to ask a question such as:

‘Can you tell me what has been happening to you?’ rather than asking ‘Have you been hearing voices or seeing things?’ Questions such as: ‘What effect has all of this had on you?’ and ‘What can we do to help you?’ establish rapport and encourage the patient to have some involvement in the outcome.

Corroborating information should be sought from family, friends, workmates, other doctors and hospitals, especially if the patient is unwilling or unable to give details.

Physical examination and investigations

Reasonable physical examination and investigations are necessary to exclude possible organic causes of psychosis. If the patient is particularly aggressive or paranoid it may not be possible to perform an examination or to take investigations initially. These may be performed later at hospital and must be performed before the diagnosis of psychiatric illness can be confirmed.⁵

Examination should include the vital signs (temperature, blood pressure, heart and respiratory rate, and oxygen saturation), the pupils, a brief neurological examination, and a focussed examination of other systems. The appropriate investigations for a patient presenting with a first episode of acute psychosis are shown in Table 1.

Risk of harm

The interviewer must make an assessment of the potential for harm to the patient and to others. Risk factors for violence, directed toward self or others, are shown in Table 2. Safety is paramount. If the assessment indicates there is a risk the patient may harm themselves or others, the assessing doctor must ensure they receive acute psychiatric treatment until the possibility of harm

Table 1. Initial investigations for first episode acute psychosis

Full blood count
ESR
Electrolytes and creatinine
Liver function tests
Thyroid function tests
Syphilis serology
HIV serology
Cerebral CT scan
Drug screen (if indicated)

Table 2. Risk factors for violence in disturbed or psychotic patients

Demographic	Younger age Male sex
Historical	A history of: <ul style="list-style-type: none"> • violence • antisocial behaviour • alcohol and/or substance abuse
Present state	Threats of violence Current intoxication with alcohol or other substances Delusions or hallucinations with violent content Command hallucinations directing violence Agitation, excitement, hostility, suspiciousness
Environmental	Presence or availability of weapons
Social	Social dislocation Lack of social supports Social minority groups

Table 3. Indications for urgent hospitalisation with acute psychosis

Risk of self harm	Recent suicide attempt Current suicidal ideation Recent self mutilation Recent thoughts of self mutilation
Risk of harm to others	Active plans, means, and intention to injure others Recent assaults on others
Aggressively disordered behaviour	Aggressive/agitated patient needing physical restraint/pharmaceutical sedation
Social deterioration	Need for intervention to prevent acute deterioration in the patient's family, occupational, educational, or social situation Lack of adequate family/social support
Need for medical treatment	Acute medical illness causing acute psychosis and needing investigation/treatment in hospital

has subsided.

If the primary doctor suspects a psychotic patient may harm themselves or others, Schedule 2 of the NSW Mental Health Act allows a doctor to order police to detain mentally ill or mentally disordered patients and take them to a public hospital for urgent assessment and treatment. The hospital may involuntarily detain and treat the patient for a specified period. Similar involuntary treatment provisions apply in other states. Table 3 shows indications for urgent hospitalisation.

Initial management

Acutely psychotic patients are often significantly distressed by sleep deprivation and alarming

thoughts, delusions, or hallucinations. Generally they should be offered a benzodiazepine to help calm them and most will accept this. Most patients will take 5-10 mg of diazepam orally and this is the benzodiazepine of choice.⁶ If quicker sedation is desirable and the patient consents, intramuscular midazolam 5-10 mg (diazepam should not be given intramuscularly) or intravenous diazepam 5-10 mg are reasonable alternatives. If the patient does not consent to taking medication, the issue should generally not be pressed in the general practice setting as 4-6 people are needed to safely restrain a patient for an involuntary injection.⁷

A rapidly acting antipsychotic agent is also indicated.⁶ Most antipsychotic agents cause some sedation. Generally however, the antipsychotic agent should be used to treat the psychotic symptoms and any sedation should be obtained by the concomitant use of a benzodiazepine. The choice of antipsychotic agent will depend on the doctor's familiarity with the medication and whether it is to be used orally, intramuscularly, or intravenously. Haloperidol is the most commonly used in the acute situation. Initial doses are 2.5-10.0 mg orally, intramuscularly, or intravenously. Chlorpromazine tablets or syrup 25-100 mg orally can be used but there are considerable concerns about its safety, including reports of sudden death with parenteral use. Droperidol should no longer be used because of recent reports concerning QT interval prolongation, ventricular tachycardia/fibrillation, and sudden death. Older people are more sensitive to antipsychotic agents and doses should be adjusted down accordingly. Small doses titrated for effect are best.

The atypical antipsychotic agents are also effective in the treatment of first episode acute psychosis and are preferred in the management of acute on chronic psychosis. Risperidone 1-2 mg orally or olanzapine 5-10 mg orally are reasonable alternatives to the phenothiazines. Risperidone is available in oral wafers that are rapidly absorbed.

Typical regimens for initial treatment in acute psychosis are:

- diazepam 5-10 mg and haloperidol 5-10 mg orally, or
- diazepam 5-10 mg and risperidone 1-2 mg or olanzapine 5-10 mg orally, or
- midazolam 5-10 mg and haloperidol 5-10 mg intramuscularly, or
- diazepam 5-10 mg and haloperidol 5-10 mg

Table 4. Drugs commonly used to treat acute psychosis

Benzodiazepines	Diazepam	2.5–10 mg	oral, intravenous	Benzodiazepine of choice Cannot be given intramuscularly
	Midazolam	2.5–10 mg	intramuscular, intravenous	Shorter duration of action. Used when intramuscular route is necessary
Typical antipsychotics	Haloperidol	2.5–10 mg	oral, intramuscular, intravenous	Typical antipsychotic of choice
	Chlorpromazine	25–100 mg	oral	Use with caution. Poor toxicity profile
Atypical antipsychotics	Olanzapine	2.5–10 mg	oral	Relatively safe Available as oral wafer for rapid absorption
	Risperidone	1–2 mg	oral	

intravenously.

The aim of initial sedation is to have the patient settled but alert enough to be properly assessed once they arrive at hospital.

Dystonic reactions can occur with any antipsychotic agent and patients should be observed accordingly and treated with benzotropine 1–2 mg intramuscularly or intravenously if symptoms occur.

Long term treatment of psychosis usually involves the use of an atypical antipsychotic agent. Typical maintenance doses of risperidone are 4–6 mg per day given once or twice daily and of olanzapine are 5–20 mg per day as a single dose. Other atypical antipsychotic agents including zuclopenthixol, flupenthixol, fluphenazine, quetiapine, thiothixene, and pericyazine may be used depending on the doctor's experience with these medications and advice from a consultant psychiatrist. Patients with long term psychiatric illness should be managed by the psychiatrist and the GP acting as a team.

The medications used in the treatment of acute psychosis are summarised in Table 4.

Conclusion

Acute psychiatric units in public hospitals, some private hospitals, psychiatrists in private practice, and community mental health emergency teams are all available to primary doctors treating patients with acute psychosis. Risk minimisation should be the basis of the referral decision.

A patient with an established diagnosis of psychiatric illness who presents with an acute or chronic psychosis may be referred back to his/her treating psychiatrist or community mental health case worker after consultation about acute treatment as long as there is no acute risk of self harm or harm to others.

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SUMMARY OF IMPORTANT POINTS

- Patients with the first presentation of acute psychosis need urgent assessment and treatment.
- Safety, level of social functioning, the presence of organic illness, and social support need to be considered when deciding on the appropriate referral.
- If there is a risk of harm to self or others, an involuntary treatment order should be completed and the police and ambulance called to take the patient to hospital. It is not safe or reasonable to ask family or friends to take an acutely agitated patient to hospital.

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