

# Psychosis in the Elderly: What Can I Do?

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Psychotic disorders characterized in older adults by loss of touch from reality, are common and challenging to manage in primary care (Table 1).

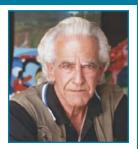
As psychiatric wards (which still house many older patients with psychosis) close across the country, nursing homes are quickly taking over as the psychiatric hospitals of tomorrow. Nursing homes are not often well-equipped to care for older patients with psychosis. Many of these patients also suffer from other conditions, such as dementia and depression.

The social and economic burden of these disorders is high. The spectrum of psychotic disorders in the elderly is broader than in younger adults, with some important clinical and epidemiologic differences.

The Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM IV), differentiates between primary psychotic disorders and disorders with secondary delusions (Table 2). Although the secondary causes of psychosis in older adults are extremely important to

# Mr. Anderson's memory

Mr. Anderson,75, presents with memory and cognitive impairments, which have been gradually progressive over the past 3 years, but most evident since the death of his wife 2 years ago. The impairments prompted an evaluation at the memory disorder clinic and a move to a residence, as Mr. Anderson could no longer manage on his own.



# Past medical/psychiatric history includes:

- coronary artery disease
- hypertension

- poor hearing
- depression
- gastroesophageal reflux disease decreased vision
- no past family history of dementia

### **Current medications include:**

- Enalapril maleate, 10 mg once daily
- Furosemide, 40 mg once daily
- Donepezil HCl, 10 mg once daily
- Cimetidine, 150 mg once daily
- Lorazepam, 0.5 mg twice daily

Mr. Anderson had recently moved from a nearby town to be closer to his daughter/primary caregiver. On admission to the new residential setting, he is found to be:

- disoriented
- wandering into other residents' rooms
- increasingly impulsive
- · verbally threatening and frightening to residents, visitors, and female staff

From the family you learn that Mr. Anderson has always been verbally aggressive and abusive when frustrated or in conflict. There is no previous history of physical violence reported. He has never been very sociable, and tended to be suspicious and defensive throughout his premorbid life. A past hobby included electronics, with several patents to his name.

See page 118 for followup.

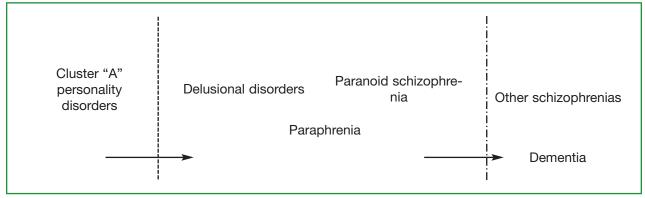


Figure 1. The "paranoid spectrum" of primary psychosis.

consider, the focus of this article will be on the most common causes of primary psychotic disorders.

# What are primary psychoses?

The most common primary psychotic disorders include schizophrenia and delusional disorder. These two disorders form the core of the paranoid spectrum concept, which has existed for many years (Figure 1). Prior to being symptomatic, patients with cluster "A" personality disorders are linked to the spectrum, but lie outside until they become psychotic, resulting in one of the spectrum disorders. The paranoid schizophrenia, "paraphrenia" (not a DSM IV diagnosis), and delusional disorders have common features. Other schizophrenias lie outside the spectrum. Approximately 10% of delusional disorders or paraphrenia will show a shift to the right, deteriorating to schizophrenia or, in some cases, dementia. The remaining will remain diagnostically sta-

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# Table 1 Symptoms of psychotic disorders in older adults • Delusions • Hallucinations • Bizarre behaviour

ble. These are often mistaken as having schizophrenia or a mood disorder.

# What is secondary psychosis?

Secondary psychosis includes psychotic disorders secondary to organic mental syndromes, such as dementia, a general medical condition, or substance-induced disorders. When psychosis presents for the first time later in life, it is important to strongly suspect a general medical condition, a substance-induced psychotic disorder, or a mood disorder. The elderly are subject to a large number of medical illnesses that may cause psychosis. Prescribed medications that are not substances of abuse are frequently implicated. A high index of suspicion must be kept, particularly if there is no personal history of psychotic episodes, or family history of psychotic illness. Physicians should also be suspicious when the presentation includes symptoms of visual and olfactory hallucinations (as opposed to hearing complex sentences, as is more common in schizophrenia). Mood disorders

### Table 2

# Symptoms of schizophrenia

## "Positive" symptoms:

- Delusions (the most common symptom is bizarre delusions that are frequently persecutory
- Hallucinations (auditory hallucinations are the second most common symptom)
- · Disorganized speech
- · Disorganized or catatonic behaviour

### Other common symptoms:

- Thought broadcasting
- Two voices arguing
- Systematized delusions of physical or mental influence
- Grandiose, erotic, or somatic delusions may sometimes occur

## "Negative" symptoms:

- Flat affect
- Alogia
- Avolition

are often complicated by psychotic features and must be considered in the differential diagnosis of psychosis in the elderly.

# What is late onset schizophrenia?

The typical clinical profile of late onset schizophrenia (LOS) is that of an older woman who exhibits persecutory delusions, frequently with auditory hallucinations, with a chronic course. Premorbid personality is commonly schizoid or paranoid. There is improvement with low-dose antipsychotics therapy.

# What is the diagnostic criteria?

Although age at onset is not included in the DSM IV, schizophrenia usually begins in late adolescence or young adulthood and persists throughout life. However, onset of first episode after 45 (LOS) has been described. Diagnostic criteria for schizophrenia are the same across the lifespan, and DSM IV places no restrictions on age of onset for a diagnosis to be made. Women are more likely to have LOS than men. There is a greater prevalence of paranoid-type schizophrenia in the late-onset variety. One-year prevalence of schizophrenia in people over 65 is around 0.6%, versus 1.3% for people between 18 and 54.

The symptoms must cause significant social or occupational dysfunction. They must not be accompanied by prominent mood symptoms, or uniquely associated with substance abuse (Table 2).

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# Late versus early onset schizophrenia

Studies comparing late versus early onset schizophrenia reveal similar genetic risk, clinical presentation, treatment response, and course. Key differences include LOS being more common in women in whom paranoia is a predominant feature. They are less impaired in the specific neurocognitive areas of learning, abstraction, and cognitive flexibility. Loose associations and inappropriate affect are less common in younger adults. There is insidious deterioration in personal and social functioning, but compared to younger patients those with LOS have better occupational history and are more likely to be married. In community settings, late-onset patients experience less severe symptoms overall and require lower doses of antipsychotics to manage their symptoms than middle-aged patients who were diagnosed when they were younger. These, and other differences, suggest biologic differences may account for the later onset of symptoms in this older group of patients.

# What is the cause?

A stress-diathesis model is often used to explain the etiology and onset of schizophrenia in younger adults. A genetic vulnerability in combination with an environmental insult (such as obstetric complication) sets the stage. The onset is triggered by maturational changes or life events that stress a vulnerable brain. This multipleinsult model proposes fewer insults as an explanation for the delayed onset in LOS, reflecting a less severe form of the disease, less likely to manifest early in life. The protective role of estrogens has been considered to explain better outcomes in females with the disease.

In LOS, there is an increased rate among first-degree relatives. Prior social isolation, being unmarried, having sensory deprivation, schizoid or paranoid personality disorder, and unfavourable social milieu are predisposing factors for the emergence of frank paranoid symptoms in old age. Equivalent degrees of childhood maladjustments and minor physical anomalies suggest early

liability in both groups. Neuropsychologic impairment and electroencephalographic abnormalities are less severe in LOS. Negative symptoms are less pronounced in LOS and antipsychotics doses needed to treat are lower.

# Paranoid schizophrenia in the elderly

There are good arguments why paranoid schizophrenia should be separated from the rest of schizophrenia. Although it is a psychotic disorder like the other forms of schizophrenia, paranoid schizophrenia is dominated by systematized (though not encapsulated) delusions and auditory hallucinations with fairly clear themes. Family history is only present half as often, less personality disintegration is seen, and age of onset is higher on average than in other schizophrenias. Although thought and behaviour disorder are present, there is less incoherence, better organization, and better preservation of

# Mr. Anderson's results

Medical and psychiatric pathologies have been ruled out. The dementia blood chemistry workup was essentially normal. A computed tomography scan of the brain revealed moderate diffuse atrophy. There are some periventricular white matter lucencies.

The Folstein score was 20/30. Mr. Anderson lost:

- · 3 points on short-term memory
- 1 on "no-ifs-ands-or-buts"
- 1 on intersecting pentagons
- 5 on disorientation to year, date, month, place, floor

The behaviour scale reveals that Mr. Anderson typically becomes agitated in the late afternoon and evenings, when there is less staff and little to no activities available, and when there is greater in/out activities at the door. His behaviour is often unpredictable, volatile, and aggressive several times daily.

See page 119 for discussion.

# Mr. Anderson's discussion

Mr. Anderson is an example of a person with a premorbid "Cluster A" type personality who later develops dementia with associated psychotic and behavioural complications. He does not have the typical features of schizophrenia. The case also highlights the importance of biologic, psychologic, and social challenges or triggers.

For example, against a backdrop of personality and genetic factors, the death of Mr. Anderson's wife, depression, relocation, poor vision, poor hearing, vascular risk factors, anticholinergic, as well as benzodiazepine medication load, and possible delirium all serve as possible triggers for his psychotic and aggressive behaviors. He meets criteria for probable mixed dementia (most likely Alzheimer's and vascular disease).

affect. Compared with delusional disorder or paraphrenia, LOS includes greater deterioration in affect and rapport.

# When does it hit?

Most patients with schizophrenia have had their disease since early adulthood. Many early-onset schizophrenia patients survive into old age. Little is known, however, about the long-term course of schizophrenia. Approximately one-third of patients either undergo remission or are left with mild symptoms over the long term. The more positive symptoms lessen in severity, whereas the negative symptoms persist.

# What is delusional disorder?

Patients with delusional disorder have a stable and well-defined, encapsulated delusional system, but otherwise function with a relatively normal personality, are not demented, and do not suffer from a mood disorder. They often become progressively overwhelmed by their delusional beliefs, act on

them, and get into difficulties with their neighbours, friends, businesses, or the law. Hallucinations may sometimes be present, but are not prominent.

Men and women are equally affected. The age of onset can be from adolescence to extreme old age. Many patients are unmarried, divorced, or widowed. Many seem asocial, eccentric, or fanatical. Onset may be acute or gradual. Some keep their delusions a secret for years. Others use them in extreme religious sects, or act out their beliefs and get into legal difficulties.

A unique feature of this disorder is the way these patients frequently oscillate between delusional and normal modes. Hypervigilant, hyperalert, remorselessly driven modes often fluctuate with relatively calm mood, normal conversation, and functional states. When delusional, patients experience thought form that is normal, but profoundly and illogically focused on the abnormal

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# **Take-home** message



Important points concerning the treatment of patients with schizophrenia:

- The hallmark of treatment in psychotic disorder is the judicious use of antipsychotic medication.
- Adherence to medication is critical during all phases of treatment to prevent relapse and hospitalization.
- Paying special attention to the medical needs of the older psychotic patient is important.
- During all phases, engaging the patients and their support system in the treatment is vital to successful outcome.

thought content with little insight. When contradicted, patients react frequently with anger and potentially aggression.

Subtypes of delusional disorders are based on thought content. DSM IV recognizes persecutory, jealous, erotomanic, grandiose, and somatic subtypes, plus one that combines more than one theme. Within each subtype, subsets may occur. For example, the somatic subtype may include delusions of skin infestation, or of giving off a bad smell. A proportion of the persecutory subtype may be compulsively litigious.

The content of the delusion can cause confusion, as it often overlaps with other illnesses. For example, somatic-type delusions may occur in delusional depression, delusional disorder, or dementia; each with a completely different form of illness, which must be differentiated to guide appropriate treatment.

# What is paraphrenia?

Paraphrenia most closely approximates the current DSM IV diagnosis of LOS in the U.S., but overlaps to some extent with delusional disorders. It is not a term in the DSM IV.

Historically, it was akin to schizophrenia, marked by persistent delusions and hallucinations, but with less deterioration of reality testing, personality, emotional rapport, volition, and less common family history.

Compared to delusional disorders, paraphrenic delusions lack the logical organization, are not well encapsulated from the rest of the personality, and often have multiple themes. Hallucinations are more frequent. There is little data suggesting an equal sex ratio. Deafness, social isolation, and premorbid personality disorder are predisposing factors.

# What is the treatment?

The hallmark of treatment in psychotic disorder is the judicious use of antipsychotics. Once the correct diagnosis is made, prompt therapy should be initiated. Most primary psychotic disorders will likely require lifelong maintenance antipsychotic therapy. The treatment plan should be divided into three phases: acute, medium, and long term. Safety of the patient and others is the primary objective in the acute phase. Patients may require hospitalization. Supports must be in place to ensure safety for all parties. Paranoid patients often harbour delusions against specific persons and sometimes act on them. Taking appropriate safety measures to protect the potential victim(s) of the patient's delusional targets is ethically necessary and medico-legally mandated in most cases. Once stabilized, the medium and longer-term phases involve consideration of the patient's reintegration in the community. Ongoing psychoeducation, psychosocial support, and environmental and social support (including housing, finances, vocation, recreation, spiritual guidance) are important to maintain the stabilization of symptoms. During all phases, engaging the patients and their support system in the treatment is vital to a successful outcome.

Adherence to treatment is a challenging task. Adherence to medication is critical during all phases of treatment to prevent relapse and hospitalization. Many patients with psychotic disorders are non-adherent to treatment plans and require ongoing support and collab-

oration with families and outside agencies, such as home care, visiting nurses, and nursing home staff.

Paying special attention to the medical needs of the older psychotic patient is important. Psychiatric patients have been poorly treated medically and have a higher rate of mortality from medical causes. This incidence may be particularly true of older patients, since they have age-related medical problems which are often ignored.

The choice of antipsychotics is important, as these patients need to take them for many years. The traditional antipsychotics are useful for stabilizing the positive symptoms. The medications do not help the negative symptoms and cognitive symptoms that accompany psychosis and, in many cases, they worsen them. Anticholinergic properties of these drugs worsen the core deficit of memory and confusion that many older

patients experience due to the high rates of dementia in the elderly. Peripheral effects of constipation, urinary retention, dry mouth, and blurry vision are very significant for the older adult. Hypotension and sedation often leads to falls, fractured hips, and death in the elderly. Many older psychotic patients have significant cardiac risk factors. Many are smokers, obese, and hypertensive. For these patients, weight gain may be a with major problem antipsychotics. Extrapyramidal symptoms and rates of tardive dyskinesias are extremely high in older adults with older antipsychotics. Older outpatients treated with older antipsychotics experience a high cumulative incidence of tardive dyskinesias (29% at one year, 53% at two years, and 61% at three years) on low doses. It would be safe to state that, for maintenance treatment of older psychotic patients, the newer atypical antipsychotics should be first-line agents. The concept of pharmacotailoring the agent to the individual patient's profile is advocated. CME



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