FRANK JOHNSON, 58, is admitted to the med-surg unit with a diagnosis of left lower extremity cellulitis secondary to diabetes. Community-associated methicillin-resistant *Streptococcus aureus* is the probable cause. To treat the infection, the healthcare provider has ordered I.V. antibiotic therapy.

Mr. Johnson has a history of schizophrenia with paranoid delusions and auditory hallucinations. His sister, who lives with him, says that he doesn’t work due to disability, drinks six beers and smokes two packs of cigarettes a day, and spends most of his time watching TV. She adds that he’s unmotivated to change or try new things.

Mr. Johnson’s sister also reports that when Mr. Johnson is unmedicated, he experiences frequent auditory hallucinations and delusions that people are trying to harm him. He’s more apathetic and less able to perform activities of daily living while unmedicated. With medication, his hallucinations are less frequent and his delusions, while still present, are less intense.

Mr. Johnson takes the antipsychotic drug olanzapine (Zyprexa) and has gained 20 pounds since starting it. He also takes an extended-release formulation of the antihyperglycemic agent metformin. A dietitian has provided him with individualized medical...
nutrition therapy (MNT), but his sister says that he's nonadherent to nutritional recommendations. She also suspects that he's missed taking his olanzapine in the 3 days before his hospitalization.

Caring for a patient with schizophrenia in a med-surg unit can be challenging. Depression, suicidal thoughts, hallucinations, delusions, or uncontrolled anger from the mental illness can interfere with your assessments and nursing care, and potentially jeopardize the safety of both the patient and the caregiver. This article discusses how to help someone like Mr. Johnson minimize stress during a hospital stay, maximizing response to treatments and minimizing safety risks. The following brief review of this chronic psychotic disorder will give you insights into your patient's behavior.

Causes, signs, and symptoms
Schizophrenia is a term describing a group of disorders caused by genetic and nongenetic factors. Although the exact causes haven't been pinpointed, research has strongly implicated genetics. Nongenetic factors such as maternal viral infection or poor nutrition during pregnancy and birth injuries that deprive the infant of oxygen may play a role as well.

Signs and symptoms of schizophrenia are classified as positive and negative. (See What's behind the...
Signs and symptoms of schizophrenia? For physiologic changes affecting behavior.

**Positive symptoms** of schizophrenia are an exaggeration or distortion of normal functioning and include the following:

- **Hallucinations** are perceptual distortions arising from any of the senses. Hearing voices from internal stimuli is the most common type.
- **Delusions** are false beliefs, including paranoid delusions in which the patient suspects someone is trying to cause personal harm.
- **Bizarre behaviors** include unusual social behaviors, agitation, and aggression, or stereotypical actions (motor behavior that once had meaning for the patient, such as washing windows or sweeping the floor, but are now meaningless and without purpose).
- **Disruptions in thought processes** may manifest as disorganized speech, flight of ideas, a belief that casual events specifically refer to the patient, meaningless rhyming, or making up new words (neologisms).

**Negative symptoms** of schizophrenia are a lessening of normal functioning. They include:

- **Flat affect**, an inability to show emotion, or **blunted affect**, a restricted range of emotional expression
- **Anhedonia**, an inability to experience pleasure
- **Asociality**, an inability to maintain social contacts
- **Apathy**, a lack of feelings, emotions, interest, or concern
- **Lack of volition**, the absence of drive or initiative, or decreased interest in the outside world
- **Ambivalence**, the inability to make decisions because of opposite conflicting emotions.

**Two levels of cognitive disruption**

Schizophrenia also affects cognitive functioning, which occurs on two levels:

- **The routine level** relies on learned responses. A patient with schizophrenia may be able to function when routine, repetitive cognitions are required. For example, the patient might be able to visit a treatment center daily by taking the same bus route to and from home.
- **The supervisory level** of cognition becomes necessary when routine responses aren’t adequate and the brain must cope with novel stimuli. Most patients with schizophrenia have difficulty with supervisory level functions, such as establishing goal-directed plans and continuing to perform a task when interrupted.

Schizophrenia has three phases: acute, maintenance, and stabilization. In the **acute phase**, the person experiences the positive symptoms of hallucinations and delusions as well as the negative symptoms, including cognitive deficits. In the **maintenance phase**, the acute symptoms decrease in severity. In the **stabilization phase**, acute symptoms are in remission, although the patient may experience mild, persistent symptoms.

Although schizophrenia tends to be a lifelong disorder, the prognosis varies from person to person. Adherence with medication and relapse prevention are very important because the patient with schizophrenia loses more ability to function with each acute episode. Although cognitive deficits are a part of the illness and increase with each acute episode, the patient can still learn and understand concise terms to help him understand.

**Assessing Mr. Johnson’s condition**

When you first enter Mr. Johnson’s room to assess him, he’s alert and oriented but continually tilts his head to the side and mumbles to himself, suggesting he’s having auditory hallucinations. He doesn’t make eye contact and seems very uncomfortable talking with you. Later, when you prepare to
administer his I.V. antibiotic, he acts guarded and suspicious even though you clearly explain to him what you’re doing and why. Missing multiple doses of olanzapine may be increasing his symptoms and contributing to his behavior.

Missing doses of antipsychotic medication can worsen symptoms and increase problematic behavior, so resume Mr. Johnson’s medication immediately, as prescribed. Olanzapine’s half-life ranges from 21 to 54 hours, regular dosing is necessary to reach and maintain stable blood levels.

Olanzapine is classified as an atypical or newer antipsychotic. It produces few movement or orthostatic symptoms, unlike older or “typical” antipsychotics, which can cause rigidity, persistent muscle spasms, tremors, and restlessness. However, it can cause other adverse reactions, including sedation, postural hypotension, dizziness, and constipation.

Weight gain, type 2 diabetes, and metabolic syndrome have been reported with the use of the atypical antipsychotics. Because Mr. Johnson has type 2 diabetes and has gained a significant amount of weight since starting olanzapine, the healthcare provider may consider changing his antipsychotic medication to one that doesn’t trigger weight gain, such as aripiprazole.

Beware of NMS
When a patient is receiving an antipsychotic medication, you need to regularly assess for signs and symptoms of neuroleptic malignant syndrome (NMS), a rare but potentially fatal condition. Possibly caused by the acute reduction in dopamine activity in the brain, NMS decreases levels of consciousness and greatly increases muscle tone and autonomic dysfunction. The patient may develop hyperpyrexia, muscle rigidity, altered mental status, and autonomic instability (unstable BP, tachycardia, diaphoresis, and cardiac dysrhythmias). Additional signs may include elevated creatinine phosphokinase, myoglobinuria (rhabdomyolysis), and acute renal failure.

Immediately notify the healthcare provider if you note any early signs and symptoms of NMS. Treatment includes discontinuing the antipsychotic medication and managing signs and symptoms.

How to build trust, maintain safety
When you care for someone with schizophrenia, you first need to earn the patient’s trust. Because of negative symptoms, Mr. Johnson can’t tolerate long conversations and assessments; initiate short, frequent contacts to help build a therapeutic relationship. Early in his stay, sit down and talk with him using your active listening skills and conveying a nonjudgmental and empathetic attitude.

After establishing rapport, ask Mr. Johnson if he’s hearing voices. If he says no but his behavior indicates otherwise, don’t challenge him—come back to that part of the assessment later. If he acknowledges hearing voices, ask if he recognizes them and what they’re saying. Determine whether he’s having command hallucinations directing him to specific behaviors, such as doing harm to himself or others.

If Mr. Johnson is hearing voices that are telling him to harm himself or others, intervene immediately according to facility policy. Initiate suicide precautions if indicated. If he’s medically stable, he may need to be transferred to a psychiatric unit.

You can help Mr. Johnson manage his hallucinations with appropriate nursing interventions. Keep in mind that the hallucinations are real to him. Rather than telling him that the voices aren’t real, acknowledge their reality to the patient but also let him know you don’t hear the voices. You can also make statements that acknowledge the feelings the voices may be evoking: for example, “I don’t hear the voice telling you that you are no good,

Looking deeper for the cause of schizophrenia
The mesocorticolimbic dopamine system arises in the brain’s ventral tegmental area. Overactivity of cells in this area has been implicated in schizophrenia.

but I do understand how upsetting that must be for you.”

Often, using distractions and keeping the conversation in the “here and now” helps the patient by providing an alternative to listening to the voices. For example, you might say, “Try not to listen to the voices right now. I want to talk with you.”

As with hallucinations, delusions are very real to the patient. Don’t try to talk a patient out of a delusion with logic and reason. If Mr. Johnson believes that you’re trying to poison him when you administer medication, for example, don’t try to convince him otherwise; instead, continue to establish rapport and build trust with brief, frequent contacts. Without directly challenging Mr. Johnson’s false beliefs, voice doubt and express understanding of his fears. For example, you might say, “This medication is to treat the infection in your leg. It must be frightening to think that someone’s trying to poison you.” Continue to offer the medication and, as he begins to trust you, his fears may diminish.

If a patient continues to refuse medication, notify the prescriber and follow facility policy for reporting and documenting this situation. If the patient becomes belligerent, maintaining safety—yours and the patient’s—must be the first priority. Leave the room, notify your supervisor, and follow facility policy for dealing with a potentially violent patient.

**Discharge planning for your patient**

Having resumed his olanzapine regimen, Mr. Johnson reports a decrease in hallucinations and has been cooperative with his I.V. antibiotics and other treatment. After 14 days in hospital, his cellulitis is under control and his I.V. antibiotics have been discontinued. He’s being discharged on a regimen of oral antibiotics, olanzapine, and metformin. He has a follow-up appointment with his psychiatrist to be evaluated for a possible change from olanzapine to an antipsychotic that doesn’t promote weight gain, hyperglycemia, and metabolic syndrome.

As you prepare Mr. Johnson for discharge, provide health education for him and, with his permission, his sister, who’s his primary caregiver at home. Besides reviewing the medication regimen with them, educate Mr. Johnson about the importance of following MNT. Also teach him about skin care and signs and symptoms of infection to report to the healthcare provider.

Mr. Johnson may benefit from a referral to a case manager, who can help ensure that he adheres to his medication regimen, and to a drop-in center, a place where patients with mental health problems can go for support and social activities. Schizophrenia is a chronic illness; having a safe place to socialize with people who understand him and where he feels safe talking about his feelings can help Mr. Johnson cope with signs and symptoms.

Also teach Mr. Johnson to avoid alcoholic beverages, which can potentiate drug effects, and encourage him to stop smoking. Many patients with schizophrenia smoke, possibly because nicotine may affect the dopaminergic and cholinergic systems in the brain to lessen negative symptoms of the disease. Although this may help calm patients with schizophrenia, the dangers of smoking far outweigh any potential benefits. Even if Mr. Johnson is unlikely to quit smoking, you can give him the information he needs to decide. Advise him to talk to his healthcare provider about smoking cessation aids, such as a nicotine patch, if he wants to quit.

Finally, direct Mr. Johnson and his sister to the National Alliance on Mental Illness, which provides education and support groups for people with mental illness and their families (http://www.nami.org).

**Responding to complex needs**

With diagnoses of schizophrenia, type 2 diabetes, and cellulitis, Mr. Johnson has complex healthcare needs. Through active listening, building rapport, empathy, and optimal nursing care, you can help him control symptoms of schizophrenia and improve his overall health.

**REFERENCES**


**RESOURCE**


Sheila Hoban is a professor in the School of Nursing at California State University in Chico.