Discipline applications

This activity is intended for the student learning about the pharmacotherapeutics of psychiatric care. The student may use this activity, the accompanying EHR, and pharmacy-related resources to complete this activity. Additional references and resources used in this activity include professional psychiatric reference websites and industry publications.

Learning objectives

1. Examine the clinical signs and symptoms of schizophrenia and related psychosis.
2. Identify the epidemiological trends of schizophrenia.
3. Formulate goals of symptom and disease management for clients with schizophrenia.
4. Compare the medications most often used to treat the symptoms of psychosis seen in schizophrenia.
5. Discuss the risks and benefits of first and second generation anti-psychotics in the management of schizophrenia.
6. Determine the best approaches to pharmacotherapeutic treatment of the patient experiencing hallucinations and delusions.

Prerequisite

1. Complete the activity:
   a. Go! EHR Orientation

Student instructions

1. If you have questions about this activity, please contact your instructor for assistance.
2. You will review the chart of Jacqueline Jones to complete this activity. Your instructor has provided you with a link to the Pharmacotherapeutics for Psychosis activity. Click on Launch EHR to review the patient chart and begin this activity.
3. Refer to the patient chart and the Glossary of terms, found in this document, to complete this activity. You may also need to refer to a separate drug guide or medication resource for this activity.

4. Document your answers directly on this document as you complete the activity. When you are finished, you will save the document and upload it to your Learning Management System (LMS).

**Glossary**

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the handbook used by health care professionals in the United States and much of the world as the authoritative guide to the diagnosis of mental disorders. DSM contains descriptions, symptoms, and other criteria for diagnosing mental disorders. It provides a common language for clinicians to communicate about their patients and establishes consistent and reliable diagnoses that can be used in the research of mental disorders. It also provides a common language for researchers to study the criteria for potential future revisions and to aid in the development of medications and other interventions. (David Kupfer, 2014)

**Because schizophrenia is a chronic illness that influences virtually all aspects of life of affected persons, treatment planning has three goals: 1) reduce or eliminate symptoms, 2) maximize quality of life and adaptive functioning, and 3) promote and maintain recovery from the debilitating effects of illness to the maximum extent possible. (APA)**

**Mental Health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. (WHO)**

**Schizophrenia** is a serious mental illness that interferes with a person’s ability to think clearly, manage emotions, make decisions and relate to others. (NAMI, 2015) Schizophrenia is a chronic, severe, and disabling brain disorder that has affected people throughout history. People with this disorder may hear voices other people don’t hear. They may believe other people are reading their minds, controlling their thoughts, or plotting to harm them. This can terrify people with the illness and make them withdrawn or extremely agitated. People with schizophrenia may not make sense when they talk. They may sit for hours without moving or talking. Sometimes people with schizophrenia seem perfectly fine until they talk about what they are really thinking. About 1% of
Americans have schizophrenia. It affects men and women equally and occurs at similar rates in all ethnic groups around the world. Symptoms such as hallucinations and delusions usually start between ages 16 and 30. Men tend to experience symptoms a little earlier than women. Most of the time, people do not get schizophrenia after age 45. Schizophrenia is rarely diagnosed in children. (NIMH, 2015)

Phases of schizophrenia. There are three phases of schizophrenia — prodromal (or beginning), active, and residual. They tend to occur in sequence and appear in cycles throughout the course of the illness.

Prodromal phase. When symptoms develop gradually, people may begin to lose interest in their usual pursuits and to withdraw from friends and family members. They may become easily confused, have trouble concentrating, and feel listless and apathetic, preferring to spend most of their days alone. They may also become intensely preoccupied with religion or philosophy. Family and friends may be upset with this behavior, believing the person is lazy rather than ill. (CAMH, 2012) A combination of factors can predict schizophrenia in up to 80% of youth who are at high risk of developing the illness. These factors include isolating oneself and withdrawing from others, an increase in unusual thoughts and suspicions, and a family history of psychosis. (NIMH, 2015) Occasionally, these symptoms reach a plateau and do not develop further but, in most cases, an active phase of the illness follows.

Active phase. During schizophrenia’s active phase, people may experience delusions, hallucinations, marked distortions in thinking and disturbances in behavior and feelings. This phase most often appears after a prodromal period. On occasion, these symptoms can appear suddenly. (CAMH, 2012)

Residual phase. After an active phase, people may be listless, have trouble concentrating and be withdrawn. The symptoms in this phase are similar to those outlined under the prodromal phase. If there have been no symptoms before the first episode, few or no symptoms may be experienced afterward. During a lifetime, people with schizophrenia may become actively ill once or twice, or have many more episodes. Unfortunately, residual symptoms may increase, while ability to function normally may decrease, after each active phase. It is therefore important to try to avoid relapses by following the prescribed treatment. Currently it is difficult to predict at the onset how fully a person will recover. (CAMH, 2012)

Positive symptoms seen in schizophrenia during the active phase are psychotic behaviors not seen in healthy people. People with positive symptoms often "lose touch" with reality. These symptoms can come and go. Sometimes they are severe and at other times hardly noticeable, depending on whether the individual is receiving treatment.
They include hallucinations, delusions, thought disorders and movement disorders. (NIMH, 2015)

**Hallucinations** include a person hearing voices, seeing things, or smelling things others can’t perceive. The hallucination is very real to the person experiencing it, and it may be very confusing for a loved one to witness. The voices in the hallucination can be critical or threatening. Voices may involve people that are known or unknown to the person hearing them. (NAMI, 2015)

**Delusions** are false beliefs, not part of a person’s culture, that don’t change even when the person who holds them is presented with new ideas or facts. People who have delusions often also have problems concentrating, confused thinking, or the sense that their thoughts are blocked. (NAMI, 2015)

**Thought disorders** are unusual or dysfunctional ways of thinking. One form of thought disorder is called “disorganized thinking.” This is when a person has trouble organizing his or her thoughts or connecting them logically. They may talk in a garbled way that is hard to understand. (NIMH, 2015)

**Movement disorders** may appear as agitated body movements. A person with a movement disorder may repeat certain motions over and over. In the other extreme, a person may become catatonic. Catatonia is a state in which a person does not move and does not respond to others. (NIMH, 2015)

**Negative symptoms** seen in schizophrenia are ones that diminish a person’s abilities. Negative symptoms often include being emotionally flat or speaking in a dull, disconnected way. People with negative symptoms may be unable to start or follow through with activities, show little interest in life, or sustain relationships. Negative symptoms are sometimes confused with clinical depression. (NAMI, 2015) Negative symptoms can include a “flat affect” (a person’s face does not move or he or she talks in a dull or monotonous voice), lack of pleasure in everyday life, lack of ability to begin and sustain planned activities, and speaking little, even when forced to interact. (NIMH, 2015)

**Anosognosia** from the Greek meaning “to not know a disease” is a common condition in certain mental illness. Anosognosia means that someone is unaware of their own mental health condition or that they can’t perceive their condition accurately. Anosognosia is relative. Self-awareness can vary over time, allowing a person to acknowledge their illness at times and making such knowledge impossible at other times. It is common for insight to shift back and forth over time, variations in awareness are typical of anosognosia. (NAMI, 2015)
Cognitive issues/disorganized thinking. People with the cognitive symptoms of schizophrenia often struggle to remember things, organize their thoughts or complete tasks. (NAMI, 2015)

First generation (typical) antipsychotics. These medications are used to limit or reduce the positive symptoms associated with psychotic disorders like schizophrenia. Typical antipsychotics can cause serious movement problems that can be short (dystonia) or long term (called tardive dyskinesia), and also muscle stiffness. Other side effects can also occur. These medications include: chlorpromazine (Thorazine), fluphenazine (Prolixin), haloperidol (Haldol), loxapine (Loxitane), perphenazine (Trilafon), thiothixene (Navane), trifluoperazine (Stelazine). (NAMI, 2015)

Dystonia is a disorder characterized by involuntary muscle contractions that cause slow repetitive movements or abnormal postures. The movements may be painful, and some individuals with dystonia may have a tremor or other neurologic features. There are several different forms of dystonia that may affect only one muscle, groups of muscles, or muscles throughout the body. Some forms of dystonia are genetic but the cause for the majority of cases is not known. Acquired dystonia, also called secondary dystonia, results from environmental or other damage to the brain, or from exposure to certain types of medications. (NIH, 2012)

Tardive dyskinesia is a disorder that involves involuntary movements. Most commonly, the movements affect the lower face. Tardive means delayed and dyskinesia means abnormal movement. Tardive dyskinesia is a serious side effect that occurs with medications called neuroleptics. Symptoms of tardive dyskinesia may include: Facial grimacing, finger movement, jaw swinging, repetitive chewing, tongue thrusting. Most often, it occurs when the medication is taken for many months or years. In some cases, it occurs after taking the medication for as little as 6 weeks. (NLM, 2014)

Second generation (atypical) antipsychotics. These medications are used to limit or reduce the positive symptoms associated with psychotic disorders like schizophrenia. They are called atypical because they are less likely to block dopamine and cause movement disorders. They do, however, increase the risk of weight gain and diabetes. Changes in nutrition and exercise, and possibly medication intervention, can help address these side effects. These medications include: aripiprazole (Abilify), asenapine (Saphris), clozapine (Clozaril), iloperidone (Fanapt), lurasidone (Latuda), olanzapine (Zyprexa), paliperidone (Invega), risperidone (Risperdal), quetiapine (Seroquel), ziprasidone (Geodon). (NAMI, 2015)
The activity

Launch the EHR of Jacqueline Jones by starting a new EHR session in Step 2. Read through the patient chart, especially the notes found on the Notes tab, and answer the following questions.

Apply your knowledge

1. Why was Jackie brought to the emergent psychiatric treatment center today?
   For protective placement. Her family is worried about her safety and theirs.
2. What is schizophrenia?
   Schizophrenia is a mental disorder characterized by abnormal social behavior and failure to understand what is real. Common symptoms include false beliefs, unclear or confused thinking, hearing voices, reduced social engagement and emotional expression, and a lack of motivation.
3. Who is more likely to develop schizophrenia, men or women?
   Males
4. At what age is schizophrenia most commonly identified?
   Late adolescence and early adulthood
5. What percentage of Americans have been diagnosed with schizophrenia? Is schizophrenia more prevalent in any particular ethnicity group?
   0.025–0.05% of people have been diagnosed. African Americans are more at risk.
6. See the glossary definitions above. What positive symptoms of schizophrenia are mentioned in the Initial psychiatric family assessment note? Categorize and describe these as hallucinations, delusions, thought disorders or movement disorders.
   Thought disorders, she is making up stories that her mother is poisoning her and that her older brother molested her as a child.
7. What positive symptoms of schizophrenia are mentioned or described in the Initial patient psychiatric assessment note? Categorize and describe these as hallucinations, delusions, thought disorders or movement disorders.
   Thought disorders, she stated her brother molested her and that her mother and sister that brought her in are clones of the real person.
8. See the glossary definitions above. What negative symptoms of schizophrenia are mentioned in the Initial psychiatric family assessment note?
   She became disconnected from things, she stopped showing up to school, she never came out of her room.
9. What negative symptoms of schizophrenia are mentioned or described in the Initial patient psychiatric assessment note?
   She showed no emotions, she was disconnected from the interview.
10. Jackie lives in the state of Wisconsin. The physician admits her under a Wisconsin state statute called 51.20. Search the internet for “Wisconsin 51.20” and describe the purpose and meaning of this statute to Jackie’s case.
   It means the doctor can voluntarily commit someone against their will if they believe they pose a threat to themselves or other people.

11. What medications are ordered for Jackie and why?
   - Resperidal, it is used to treat schizophrenia and its symptoms. Haldol is used to treat schizophrenia. Dulcolax is prescribed because the Haldol and resperidal can cause constipation.

Antipsychotic medications can result in specific types of side effects. Review available drug resources, including the accompanying resource, “Adverse Effects of Antipsychotics,” and define the following potential side effects of antipsychotic medications. (AAFP, Voulme 81, number 5 2010)

12. What are Anticholinergic effects?
   They block the parasympathetic symptom which causes the fight or flight s/s which is raising the blood pressure, heart rate, respirations.

The following extrapyramidal symptoms are known to be related to antipsychotic medications. Describe each and identify when it is likely to be seen in a patient taking an antipsychotic medication.

13. Pseudoparkinsonism- pseudoparkinsonism is a side effect of a drug that causes Parkinson like symptoms. You can have it when taking risperdal

14. Akathisia- Akathisia is a rare syndrome of movement disorder, featuring restlessness that exhibits itself in many ways. The person affected with akathisia syndrome cannot sit still even for few minutes.

15. Dystonia- Dystonia is a neurological movement disorder syndrome in which sustained or repetitive muscle contractions result in twisting and repetitive movements or abnormal fixed postures.

16. Tardive dyskinesia- causes stiff, jerky movements of your face and body that you can’t control. You might blink your eyes, stick out your tongue, or wave your arms without meaning to do so.

**Critical thinking questions**

17. If Jackie is placed on the current pharmacotherapeutic plan as indicated by the medication orders in her chart, what clinical monitoring would be recommended? Describe the test(s) and the frequency.
18. Describe what you think the best pharmacotherapeutic treatment plan would be for Jacqueline Jones. Include your rationale and resources.

Submit your work

Document your answers directly on this document as you complete the activity. When you are finished documenting your answers, save this Word document. Then upload it to your Learning Management System (LMS). If you have any questions about submitting your work to your LMS, please contact your instructor.
References


