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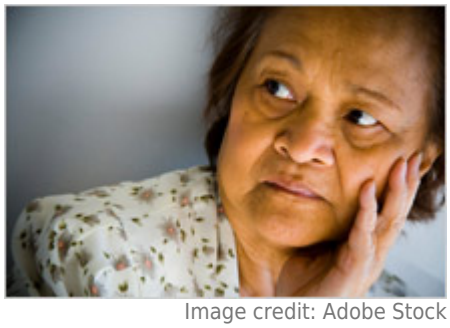
Schizophrenia: Information for Primary Care



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Summary: Schizophrenia is a chronic illness characterized by symptoms such as hallucinations, delusions and disorganization. While schizophrenia is usually diagnosed by psychiatrists (or in collaboration with psychiatrists), primary care providers play a key role in ongoing follow-up, management of comorbid medical conditions and medication monitoring. As psychiatrists are not always part of the ongoing care of a patient with schizophrenia, family physicians can also play a key role by liaising or referring to mental health services if necessary.

About this Guide

This guide is focused on the management of patients with a prior diagnosis of schizophrenia. For patients presenting with First Episode Psychosis, in whom there is not a prior diagnosis, consider this Guide to First Episode Psychosis.

Case

D. is a patient, new to your pratice, who has a diagnosis of schizophrenia. You are seeing her for her first visit...

Epidemiology

- Lifetime prevalence 0.3-0.7% (DSM-5)
- M = F
- Men typically present in adolescence or early 20s
- Women typically present in their late 20s or early 30s (Schultz et al., 2007)

Risk factors

- Family history of schizophrenia
- Genetics
- Possible risk factors
- Season and location of birth
- Socioeconomic status
- Maternal infections

Clinical Presentations of Schizophrenia

- Prodrome
    - Prior to the official diagnosis of schizophrenia, patients often can present to family physicians during a prodromal phase
    - Prodromal symptoms occur slowly and gradually, and include symptoms such as:
    - Social withdrawal
    - Decreased interest in school or work
    - Hygiene and grooming deterioration
    - Unusual behaviour
    - Outburst of anger

- First episode psychosis
    - At some point, symptoms of psychosis may worsen to the point where a patient is seen by mental health professionals, and diagnosed officially as having first episode psychosis or schizophrenia

- After a first-episode psychosis
    - After a patient with first episode psychosis is seen by mental health services and diagnosed with schizophrenia, they may receive ongoing mental health services, such as with a First Episode Psychosis Clinic
    - At some point however, the patient will usually return to ongoing follow-up with the family physician, and there may or may not be ongoing mental health follow-up

- Relapse
    - Primary care providers play a valuable role in monitoring for relapse, as even with good management, most individuals with schizophrenia can experience a relapse in psychotic symptoms

Screening for psychosis

The following questions may be helpful to screen for psychosis symptoms, whether new onset, or recurrent:

- “Sometimes when people are [under stress/feeling anxious/feeling depressed], they can have strange experiences such as trouble with their thinking or seeing or hearing things that others don’t”
- “Have you had any strange or odd experiences lately that are difficult to explain or that others would find hard to believe?”
- “Have you felt like people are watching or following you or that they want to harass or hurt you?”
- “Have you felt like others can hear your thoughts or that you can hear another person’s thoughts?”
- “Have your eyes or ears ever played tricks on you?”
- “Have there been times when you heard or saw things that other people could not?”

Diagnosis

- Schizophrenia is a clinical diagnosis based on a constellation of signs and symptoms such as
    - Delusions
    - Hallucinations
    - Disorganized speech, behaviour
    - Negative symptoms such as loss of spontaneity, motivation and persistence.

DSM-5 Criteria

1. Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated). At least one of these must be (1), (2), or (3):
    1. Delusions
    2. Hallucinations

3. Disorganized speech (e.g., frequent derailment or incoherence)
4. Grossly disorganized or catatonic behaviour
5. Negative symptoms (i.e., diminished emotional expression or avolition)

2. For a significant portion of the time since the onset of the disturbance, level of functioning in one or more major areas, such as work, interpersonal relations, or self care, is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic, or occupational functioning)
3. Continuous signs of the disturbance persist for at least 6 months. This 6 month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or by two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, usual perceptual experiences)
4. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been rules out because either 1) no major depressive or manic episodes have occurred concurrently with the active phase symptoms, or 2) if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active and residual periods of the illness
5. The disturbance is not attributable to the physiological effects of a substance (e.g., drug of abuse, medication) or another medical condition
6. If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis if schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated)

Differential Diagnosis

- Primary care providers can play a key role in helping to rule out medical causes of psychosis such as
    - General medical conditions
    - Hepatic encephalopathy
    - Hypoglycaemia
    - Electrolyte
    - Sepsis
    - Medication-induced psychosis
        - Anticholinergics
        - Anxiolytics
        - Digoxin
        - Phenytoin
        - Steroids
        - Narcotics
        - Cimetidine

- Psychiatric conditions that may also have psychotic symptoms and be confused with schizophrenia include:
    - Major depressive or bipolar disorder with psychotic or catatonic features
        - Temporal relationship: if delusions or hallucinations occur exclusively during a major depressive or manic episode, diagnosis of depressive or bipolar disorder with psychotic features
    - Schizoaffective disorder
        - Major depressive or manic episode occur concurrently with the active-phase symptoms
    - Schizophreniform disorder and brief psychotic disorder
        - Shorter duration (Criterion C)
        - Schizophreniform disorder: <6 months
        - Brief psychotic disorder: at least 1 day but <1 month
    - Delusional disorder

        - Lacks the other symptoms of schizophrenia such as delusions, prominent auditory or visual hallucinations, disorganized speech, grossly disorganized or catatonic behaviour, negative symptoms)
    - Schizotypal personality disorder
        - Subthreshold symptoms that are associated with persistent personality features
    - OCD and body dysmorphic disorder
        - Both may present with poor or absent insight and the preoccupations may reach delusional proportions
        - There are different from schizophrenia is their prominent obsessions, compulsions, preoccupations with appearance or body odor, hoarding, or body-focused repetitive behaviours
    - PTSD
        - Flashbacks may be of hallucinatory quality
        - Traumatic event and features of reliving or reacting to the event are required
        - Autism spectrum disorder or communication disorder
        - Distinguished by their deficits in social interaction with repetitive and restricted behaviours and other cognitive and communication deficits

Comorbidity

Medical comorbidity

- There is a higher prevalence of medical illness among patients with schizophrenia as well as under-recognition of such conditions
- Causes of medical illness include metabolic side effects from antipsychotic medications as well as lifestyle factors such as smoking, lack of exercise, poor diet, and substance abuse.
- The following physical illnesses are often associated with schizophrenia:
    - Cardiovascular disease
    - Respiratory diseases
    - Obesity
    - Type II diabetes mellitus
    - Hyperlipidemia
    - Osteoporosis
    - Anticholinergic effects
    - Extrapyramidal symptoms
    - Hyperprolactinemia

Psychiatric comorbidity

- Substance-related disorders: Over half of individuals with schizophrenic have tobacco use disorder
- Anxiety disorders such as OCD and panic disorder
- Schizotypal or paranoid personality disorder (sometimes precede onset)
- Autism spectrum disorders (ASD)

Management: Overview

- Therapeutic relationship
    - Developing a good therapeutic relationship (by finding mutually agreed upon goals with the patient, and collaborating about strategies, as well as listening and attending to the patient’s concerns) improve adherence to treatment
    - For example:
        - Finding a goal, e.g. “How can I be helpful?” “What would you like to work on today?”
- Monitoring medications

    - Antipsychotic medication is essential to treatment of schizophrenia
    - Non-adherence is a significant problem in the treatment of schizophrenia
- Monitoring safety
    - Monitoring thoughts of suicide is important as 5-6% of individuals with schizophrenia die by suicide (DSM-5)
    - Psychosocial interventions
        - Most effective when implemented once acute symptoms have been reduced and patient can engage
        - Work along with medications to improve adherence, functioning, and lifestyle
- Providing empathy, validation and acceptance
    - At the end of the day, people with schizophrenia have the same wishes and goals as other people
    - Many of them have the same wishes to feel connected to others, and may struggle with the loneliness and social isolation caused by their schizophrenia, and as a result, there may be deep feelings of sadness and loss
    - One of the most important roles that any health care provider can do, is to listen to their feelings, and validate and agree with what we can agree with honestly
    - For example:
        - When a patient with schizophrenia reports that they are sad because there is a microchip in their head…
        - Do not start by trying to convince them there is not a microchip, because this will be interpreted as being invalidating
        - Instead, agree with the core feelings
        - You might consider the following:
        - Provide connection: “I can see this must be a difficult situation to be in for you. It sounds very frustrating. I think anyone in your same situation would probably feel pretty frustrated too.”
        - Provide direction: “Let’s focus on what might be helpful… What has helped you feel in control?” “What has helped you cope with this?”
- Liaison with and/or referral to mental health services as necessary

Management: Medications

Second-Generation Antipsychotics (SGA)

- Increasingly used as first-line treatment
- Examples: Risperidone, Olanzapine, Quietiapine, Ziprasidone, Clozapine (used not as first-line, rather for refractory schizophrenia)
- Advantages: Fewer neurological side effects than first-generation antipsychotics (FGAs) such as extrapyramidal side effects and tardive dyskinesia
- Disadvantages: Metabolic side effects (weight gain, diabetes mellitus, dyslipidemia, or metabolic syndrome)

Side effects of SGAs

Weight gain and obesity	All antipsychotics may lead to weight gain Clozapine, Olanzapine lead to significant weight gain Risperidone and Quietiapine associated with moderate weight gain	Encourage preventative lifestyle changes including physical activity and good eating habits Consider changing to an antipsychotic with less weight gain (such as Aripiprazole, etc.) if weight gain cannot be limited by lifestyle
Glucose dysregulation and diabetes	Insulin resistance, hyperglycemia, type I diabetes exacerbation, new onset type II diabetes, and diabetic ketoacidosis have all been reported	Treat diabetes as indicated if diagnosed Consider switching SGA in some cases, however effectiveness not clear

Dyslipidemia	Clozapine, Olanzapine, and potentially Quetiapine are associated with hyperlipidemia	Manage dyslipidemia as indicated Consider switching SGA in some cases, however effectiveness not clear
Endocrine and sexual side effects	Risperidone associated with sustained hyperprolactinemia Olanzapine may induce transient increased prolactin Regardless of prolactin effects, all antipsychotics are associated with sexual dysfunctions	Try to reduce dosage Otherwise, switch to a prolactin-sparing agent such as Quetiapine or Clozapine
Cognitive side effects	Sedation may occur with Clozapine and less with Olanzapine and Quetiapine High Risperidone doses increase extrapyramidal side effects which may impair cognitive performance	Doses should be adjusted or agent switched if persistent cognitive dulling or sedation is experienced
Extrapyramidal side effects	SGAs still carry some risk of neurological side effects such as tremor, rigidity, and akathisia High risk with high doses of Risperidone Olanzapine is also associated with a higher risk of these side effects	Consider reducing the dose or switching to another SGA For akathisia, benzodiazepine or beta blockers may be tried is a dose reduction is not effective

First-Generation Antipsychotics (FGA)

- High potency: Haloperidol, Perphenazine, Trifluoperazine, Flupheniazine, Thiothixene
- Mid-potency: Molindone, Loxapine
- Low-potency: Chlorpromazine, Thioridazine
- Advantages: Relatively low cost
- Disadvantages: Neurologic and extrapyramidal side effects

Side effects of FGAs

Endocrine and sexual side effects	Women: Changes in libido, delayed or absent orgasm, menstrual changes, or galactorrhea Men: Changes in libido, erectile or ejaculatory troubles, or galactorrhea Hyperprolactinemia may explain the sexual side effects	Consider reducing dosage and if unsuccessful, consider switching to a prolactin-sparing agent such as Quetiapine or Clozapine **Careful when changing a woman from an FGA to a prolactin-sparing agent as fertility level may be restored**
Cognitive side effects	Sedation and a dulling effect	Consider reducing the dosage or switching to another agent
Neurological and extrapyramidal side effects		
• Acute dystonia	Muscle spasms of the tongue, face, neck, and back Within 1-5 days	Treat with antiparkinsonian agents
• Akathisia	Motor restlessness; not anxiety or agitation Within 5-60 days	Reduce dose or change agent Benzodiazepines or beta blocker can help

• Parkinsonism	Bradykinesia, rigidity, tremor, masked face, shuffling gait Within 5 to 30 days	Antiparkinsonian agents
• Tardive (“late”) dyskinesia	Oral facial dyskinesia, widespread dystonia Within months or years	Focus on prevention, by avoiding use of medications that may cause tardive dyskinesia
• Neuroleptic malignant syndrome	Catatonia, stupor, fever, unstable blood pressure Within several days	Stop medication Refer to Emergency Department for inpatient care Treatment with Dantrolene or Bromocriptine

Medication Adherence

- Medication non-adherence is common (in up to 50% or more of cases)
- Reasons for non-adherence:
    - Lack of awareness of illness
    - Alcohol and/or drug abuse
    - Problems with the therapeutic alliance
    - Medication side effects
    - Complicated dose schedules
    - Difficult access to treatment
    - Financial obstacles to obtaining medications
- Ways to improve adherence:
    - Agreeing on a common therapeutic goal, e.g. reducing stress, sleeping better, less voices, feeling less scared, etc.
    - Psychoeducation to increase knowledge and awareness of the illness
    - Reminders, prompting, and self-monitoring cues
    - Simple dosing regimens
    - "Pillbox” dosing use
    - Implementing a regular medication schedule

Monitoring Indices with Medications

Weight (BMI)	Before starting or switching antipsychotic Then monthly for 3 months Then quarterly
Waist circumference	Baseline Annually
Blood pressure	3 months At least annually
Fasting plasma glucose	Before starting or switching antipsychotic At 3 months Annually if normal
Fasting lipid panel	Before starting or switching antipsychotic At 3 months Annually if normal
Neurologic exam (dyskinesias or rigidity)	Before starting or switching Every 6 months (first generation AP) Annually (second generation AP)

Prolactin level	When indicated by symptoms of hyperprolactinemia
Eye examination (cataracts)	Every 2 years <40 years old Annually >40 years old
Smoking status	Each visit
ECG	QTc when affected by multiple medications

Should patients experience worsening metabolic parameters while taking a certain antipsychotic medication, consider switching to an antipsychotic with lower risk of metabolic problems (Viron M et al., 2012)

When and Where to Refer

- Consider referring to hospital Emergency Department for acute psychiatric hospitalization if there is :
  - Acute suicidal or homicidal ideation
  - Acute psychosis that affects safety and/or may cause permanent impairment, and/or severely impairs functioning
- Refer to outpatient mental health services for recurrence of psychotic symptoms that are not responding to usual treatments

Practice Guidelines

- Canadian Psychiatric Association. Clinical Practice Guidelines : Treatment of Schizophrenia. Nov 2005; 50(Suppl 1).

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About this Document

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