

Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA) Clinical Guideline

This metric assesses adults 18 years of age or older who have schizophrenia and were dispensed and remained on an antipsychotic medication for at least 80 percent of their treatment period. See ICNF provider manual and HealthEC for metric specifications regarding ICNF metric set.

The purpose of this guideline is to provide ICNF providers guidance on the effective clinical management of increasing patients' medication compliance, monitoring treatment effectiveness, and identifying and managing side effects (NCQA).

Note: Clinical Guidelines are statements that include recommendations intended to optimize metric success, based on the metric definition, informed by a systematic review of evidence available in the literature. They are guidance only to be interpreted and applied by each ICNF provider organization and will need to be evaluated by your clinicians to determine when applicable.

Summary Table of Potential Barriers and Interventions

The following summary table presents the primary barriers, in order of estimated frequency, that individuals with Schizophrenia may encounter relative to medication adherence. Indications of, or methods to identify the barrier are included along with potential interventions to apply relative to reducing barriers to medication adherence.

Possible Barrier	Signs/Symptoms of Barrier or Methods to Identify	Potential Interventions
Stigma	<ul style="list-style-type: none">• Missed appointments• Client's lack of belief in benefit of treatment which may have cultural aspects• Client's lack of insight into the illness• Client's concern relative to judgement from family or friends• Client is unaware of indicators of first break psychosis, does not believe they might have schizophrenia	<ul style="list-style-type: none">• Offering client choice on a variety of interventions to create opportunities that interest a client in choosing treatment• Providing client education/data surrounding schizophrenia, e.g. amount of people diagnosed, success of treatment, addressing side effects, how to lead a productive life, etc.• When engaging family, consider different methods of education available. When identifying what type of education will be most effective with the family, ensure cultural preferences have been taken into consideration• Enhanced provider communication that recognizes client's communication tolerance/style and adapting communication methods appropriately• Motivational interviewing

Possible Barrier	Signs/Symptoms of Barrier or Methods to Identify	Potential Interventions
		<ul style="list-style-type: none"> • Shared decision-making • Initiate a relationship with family members and include them in the treatment decision process. Ensure culture is central to understanding families and their view of illness and treatment
Adverse drug reactions	<ul style="list-style-type: none"> • Side effects of medication observed and reported • Client’s lack of belief in benefit of treatment • Presence of barriers to care • Complexity of treatment • Poor health literacy – client demonstrates lack of knowledge about drug reactions and efficacy • Client states that they feel better when they stop taking medication 	<ul style="list-style-type: none"> • Improved dosing schedules • Reduce overstimulating or stressful relationships, environments, and life events • Update prescriber regarding client concerns and consider alternative medications that the client may consider more beneficial • Provide client with information on the nature and management of illness, drug rationale, drug reactions • Coordinate with other providers if med-med, med-condition, or other reactions are identified
Housing Instability	<ul style="list-style-type: none"> • Missed appointments • Presence of symptoms that create instability and disorganization of activities of daily living, e.g. exacerbated by both positive and negative symptoms of schizophrenia 	<ul style="list-style-type: none"> • Support with obtaining medication and ensuring it is stored in safe place, with medication adherence support provided • Initiate a relationship with family members and include them in the treatment process • Expand provider access • Coordinate with MMA CM, if available, for housing support in community • Motivational interviewing techniques to assess housing support and identify needs
Cognitive impairment with emphasis on memory problems	<ul style="list-style-type: none"> • Presence of symptoms that create instability and disorganization of activities of daily living, e.g. exacerbated negative and positive symptoms of schizophrenia • Presence of comorbid physical health condition • Presence of cognitive impairment • Side effects of medication • Missed appointments • Identified social determinants of health challenges 	<ul style="list-style-type: none"> • Improved dosing schedules • Consider injectable medications • Cognitive behavioral therapy (CBT) and dialectical behavioral therapy (DBT) • Strategize on methods to remember medication such as personalized reminders, keeping medication where it cannot be missed, using an alarm clock or reminder application, using a pill box • Addressing side effects with prescriber and addressing what adjustments can be made to lessen side effects

Possible Barrier	Signs/Symptoms of Barrier or Methods to Identify	Potential Interventions
Lack of social support	<ul style="list-style-type: none"> • Presence of symptoms that create instability and disorganization of activities of daily living, e.g. exacerbated negative symptoms of schizophrenia • Presence of comorbid physical condition • Poor provider-client relationship • Poor client-support system relationships due to challenging behaviors and natural supports that may have eroded • Missed appointments • Identified social determinants of health challenges 	<ul style="list-style-type: none"> • Expanding provider access • Enhanced/more frequent provider communication • Motivational interviewing • Initiate a relationship with family members and include them in the treatment decision process
Afraid of medication/safety concerns	<ul style="list-style-type: none"> • Presence of comorbid physical health condition • Presence of cognitive impairment • Inadequate follow-up or discharge planning • Side effects of medication • Client's lack of insight into illness • Poor provider-client relationship • Missed appointments • Complexity of treatment • Medication is not effectively addressing symptoms 	<ul style="list-style-type: none"> • Improved dosing schedule • Expanding provider access • Shared decision-making • Offering client choice regarding medication • Enhanced provider communication that recognizes client's communication style and adapting communication methods appropriately • Providing client education around medications to set expectations and ensure understanding of medication efficacy and side effects. • Consider alternative medications that the client may consider less threatening • Motivational interviewing
Denial of illness	<ul style="list-style-type: none"> • Presence of cognitive impairment • Presence of symptoms that create instability and disorganization of activities of daily living, e.g. exacerbated negative symptoms of schizophrenia • Clients lack of insight into illness • Missed appointments 	<ul style="list-style-type: none"> • Psycho-education • Shared decision-making • Motivational messages • Care support group or 1:1 peer support
Lack of trust in provider	<ul style="list-style-type: none"> • Inadequate follow-up and discharge planning • Poor provider-client relationship • Missed appointments 	<ul style="list-style-type: none"> • Expanding provider access • Motivational interviewing • Enhanced/more frequent provider communication that recognizes client's preferred communication style and adapting communication methods appropriately

Possible Barrier	Signs/Symptoms of Barrier or Methods to Identify	Potential Interventions
	<ul style="list-style-type: none"> • Provider not trained to properly address clients experience in treatment or their concerns about entering treatment 	<ul style="list-style-type: none"> • Ensure staff that are intervening are properly oriented and trained to support client
Difficulty of regimen	<ul style="list-style-type: none"> • Presence of comorbid physical health condition • Presence of cognitive impairment • Side effects of medication • Presence of barriers to care or medications • Confusion related to treatment or complexity of treatment • Identified social determinants of health challenges 	<ul style="list-style-type: none"> • Improved dosing schedules • Consider alternative medications that the client may consider more beneficial • Offering client choice on a variety of interventions to create opportunities that interest a client in choosing treatment • Personalized reminders • Initiate a relationship with family members and include them in the treatment decision process
Feel they may have been misdiagnosed or not had their diagnosis/ prescription fully explained	<ul style="list-style-type: none"> • Presence of cognitive impairment • Side effects of medication • Missed appointments • Inadequate follow-up or discharge planning • Language and/or cultural barriers 	<ul style="list-style-type: none"> • Provide the client with information on nature and management of illness • Psychoeducation • Motivational interviewing • CBT • Shared decision-making • Consider alternative medications that the client may consider more beneficial
Feel their symptoms have been cured and no longer require medication	<ul style="list-style-type: none"> • Clients lack of belief in the benefit of the treatment • Clients lack of insight into the illness • Client does not experience symptoms directly after stopping medications, supporting perceptions they no longer need the medications 	<ul style="list-style-type: none"> • Provide the client with information on the nature and management of their illness • Psychoeducation • Take seriously the importance of the subjective attitudes and concerns of clients with respect to their illness and medications • Peer support

Clinical Guidelines

Predictors/red flags to gauge medication adherence that indicate the need for interventions to evaluate and motivate adherence

- Presence of psychological problems, particularly depression
- Presence of comorbid physical health condition
- Presence of cognitive impairment
- Inadequate follow-up or discharge planning
- Side effects of medication
- Client’s lack of belief in benefit of treatment
- Client’s lack of insight into the illness
- Poor provider-client relationship (including PCP)
- Presence of barriers to care or medications
- Missed appointments
- Complexity of treatment
- Cost of medication, copayment, or both
- Social determinants of health challenges (food, safety, housing, transportation, other)

Methods of measuring adherence

When considering an intervention, it is important to consider your options and the related advantages and disadvantages of each choice. The below table outlines various methods for measuring medication adherence and the advantages and disadvantages of each.

Test	Advantages	Disadvantages
Direct Methods		
Directly observed therapy	Most accurate	Client can hide pills in the mouth and then discard them; impractical for routine use ¹
Measurement of the level of medicine or metabolite in blood	Objective	Variations in metabolism and “white coat adherence” can give a false impression of adherence; expensive
Measurement of the biologic marker in blood	Objective; in clinical trials, can also be used to measure placebo	Requires expensive quantitative assays and collection of bodily fluids
Indirect Methods		
Client questionnaires; client self-reports	Simple; inexpensive; the most useful method in the clinical setting	Susceptible to error with increases in time between visits; results are easily distorted by the client
Pill counts	Objective, quantifiable, and easy to perform	Data easily altered by the client (e.g. pill dumping)
Rates of prescription refills	Objective; easy to obtain data	A prescription refill is not equivalent to ingestion of medication; requires a closed pharmacy system ²

¹ Note: an additional disadvantage may be negative impact on therapeutic relationship

² Note: an additional disadvantage may be ability to track variety of prescription fills

Test	Advantages	Disadvantages
Assessment of the client's clinical response	Simple; generally easy to perform	Factors other than medication adherence can affect clinical response
Electronic medication monitors	Precise; results are easily quantified; tracks patterns of taking medication	Expensive; requires return visits and downloading data from medication vials
Measurement of physiological markers (e.g. heart rate in clients taking beta-blockers)	Often easy to perform	Marker may be absent for other reasons (e.g. increased metabolism, poor absorption, lack of response)
Client diaries	Help to correct for poor recall	Easily altered by the client
When the client is a child, questionnaire for caregiver or teacher	Simple; objective	Susceptible to distortion

Source: Osterberg L, Blaschke T. Adherence to Medication. *New England Journal of Medicine* 2005; 353: 487-497.

Barriers to medication adherence

Clients often have concerns related to their medications that are the basis of their non-adherence issues. Some of these include:

- Stigma
- Adverse drug reactions
- Homelessness
- Memory problems
- Lack of social support
- Afraid of medication/safety concerns
- Denial of illness
- Lack of trust in provider
- Difficulty with regimen
- Feel they may have been misdiagnosed or not had their diagnosis/prescription fully explained
- Feel their symptoms have been cured and they no longer require the medication
- Feel taking medication means they are not personally in control
- Affordability

Overarching interventions to address non-adherence

The clinician-client relationship is a key factor in improving medication adherence. Trust and care are key qualities of the clinical-client relationship. Fostering positive expectancy and hope with clients are instrumental to clients increasing their adherence to medications. The following are specific interventions intended to improve medication adherence:

- Improved dosing schedules (see below)
- Expanding provider access
- Involving people in their treatment decisions (shared decision-making)
- Offering client choice
- Enhanced provider communication and positive effect

- Cognitive behavioral therapy
- Motivational interviewing
- Psycho-education
- Personalized reminders
- Support with obtaining medication

Adherence is related to dosing frequency:

Medication schedule	Rate of adherence
Once daily	~65-93%
Twice a day	~55-83%
Three times a day	~50-81%
Four times a day	~30-72%

Source: Osterberg L, et al. *New England Journal of Medicine* 2005; 353: 487-497.

If possible, move clients to a dosing schedule that includes medication once a day instead of multiple times throughout the day.

Shared decision-making:

- Move from medication “compliance” (client’s passive following of provider orders) to making collaborative treatment decisions jointly based on client lived experience and choice.
- Take seriously the importance of the subjective attitudes and concerns of clients with respect to their illness and medications.
- Help clients understand that choices exist and that they are invited to participate in making decisions related to their treatment.
- Provide more information about treatment options available, including pros, cons, benefits and harms related to each. Ensure that the client understands the options and implications of choices.
- Support the person’s consideration of preferences in deciding what is best for them and their specific situation.

Specific interventions to address non-adherence issues:

- Use motivational messages to increase client’s intention to adhere to medication recommendations.
- Explore the triggers or cues that led to the client not taking the prescribed medication
 - Ask if the client felt or acted different on days when they missed their medication
 - Ask about side effects experienced
- Review why choosing to not take medication prescribed seemed like a good idea at the time.
- Review the actual outcome resulting from their choice.
- Explore the potential discrepancy between their desired outcome and actual outcome.
- Strategize with clients about what they could do differently in the future, e.g.:
 - For clients who forget to take their medication:
 - Keep medication where they cannot be missed
 - Using an alarm clock or reminder application
 - Using a pill box that helps track whether the medication was taken or not

- For clients not wanting to take their medications:
 - Acknowledge they have a right to choose not to use medications
 - Ask their reason for choosing not to take the medication
 - Tie discussion back to their recovery goals and utilize motivational interviewing skills to help make sure their decision is well thought out. Try to solicit reasons or values that can be used to engage them in a discussion about barriers or other possible solutions.
 - Update prescriber regarding client concerns and consider alternative medications that the client may consider more beneficial
- Reduce overstimulating or stressful relationships, environments, and life events.
- Provide the client with information (appropriate to his or her ability to assimilate) on the nature and management of the illness.
- Initiate a relationship with family members and include them in the treatment decision process.

References and Resources

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Practical Ways to Improve Medication Adherence, Apgar and Nunlist, <https://www.aafp.org/fpm/2016/0900/p52.html>

SBIRT steps: <https://www.hhs.gov/opa/sites/default/files/sbirt-slides.pdf>