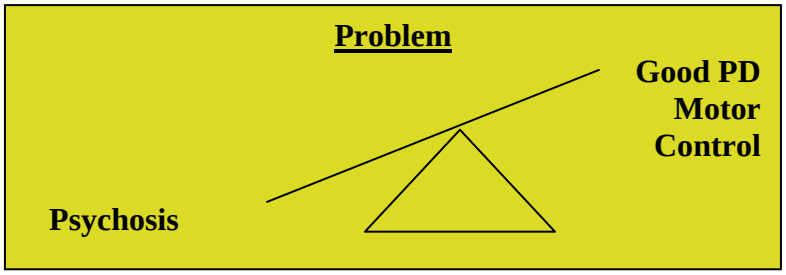
What are the Treatments for Psychosis?

Treatment of psychosis in PD can be challenging. To ensure proper treatment, the underlying cause must first be identified. The clinician must determine if the psychotic symptoms are related to medication side effects, dementia or delirium. Again, this can be difficult as these three conditions can overlap and produce similar symptoms. Blood work and other forms of testing may be necessary. Once a probable cause is determined, treatment can begin.

Treatment of Psychosis Caused by PD Medications

As discussed earlier in this chapter, PD medications relieve motor symptoms by increasing dopamine in the brain. Consequently, elevated dopamine levels can trigger psychosis. For this reason, treatment often becomes a balancing act. On one side of the scale, high dopamine levels are needed for adequate control of PD motor symptoms. However, on the other, dopamine levels need to be reduced to alleviate psychosis. This can be a complicated process and often requires a 3-step approach.



STEP 1: Assessment and Plan

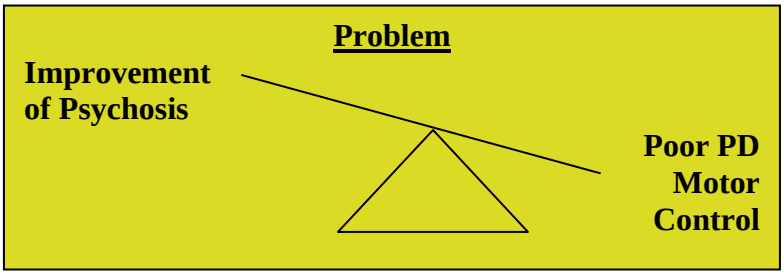
The first step in any treatment process is to assess the problem. It must first be determined if the psychotic symptoms are benign or problematic. Some clinicians will choose to postpone treatment if the symptoms are infrequent, nonthreatening and if the patient "retains insight". Other clinicians will start treatment based on the theory that psychosis will continue to get worse overtime. In addition, the clinician should consider the stage of PD, prior history of psychotic symptoms and social factors.

Step 2: Adjust or Reduce PF Medications

The next standard step of the treatment process is to adjust prescribed PD medications. The goal of this step is to improve psychosis without worsening PD motor symptoms. The clinician may decide to skip this step and proceed to step 3 if the patient is unable to tolerate potential worsening of PD symptoms. The following recommendations have been made for reducing or discontinuing PD medications for the management of psychosis.

1) **Reduce or discontinue medications in the following order until psychosis resolves:**
   - Anticholinergic medication (Artane, Cogentin)
   - Amentadine
   - Dopamine agonist (Mirapex®, Requip ®, Permax ®, Parlodel ®,
   - COMT inhibitors (Comtan ®)
2) **If psychosis does not resolve, reduce Sinemet doses**

There are a variety of techniques and measures that can be performed when adjusting PD medications. This approach generally improves psychotic symptoms. However, if motor symptoms become worse, PD medications may need to be restarted or increased, with Sinemet being the core of therapy, and step 3 started.



Key Point: You should never make adjustment to your PD medications without first consulting your clinician. In addition, PD medications should not be stopped abruptly as this can cause life-threatening side effects.

STEP 3: Initiation of Antipsychotic Therapy

Antipsychotic agents are also designed to balance abnormal chemical levels in the brain. They work by reducing excess dopamine thereby, alleviating psychosis. Up until the 1990's, the use of antipsychotics in PD had been controversial. This was because older, also known as "typical", antipsychotic medications were found to cause dramatic worsening of parkinsonian motor symptoms. Fortunately, newer medications have become available that are better tolerated by PD patients. This newer class of medications is referred to as "atypical" antipsychotics.

There are two "atypical" antipsychotic medications that are considered safe for PD patients. They cause limited worsening of parkinsonian symptoms while treating psychosis. These medications are clozapine (Clozaril ®) and quetiapine (Seroquel®). Clozapine was once considered the best antipsychotic medication for PD patients. However, due to a rare yet serious side effect known as agranulocytosis, it is now primarily used if quetiapine is not tolerated or effective. Agranulocytosis is a reduction in white blood cells, which interferes with the body's ability to fight infection. Patients on clozapine are required to get weekly blood tests for the first six months and then every two weeks to monitor white blood cell levels. Quetiapine is similar to clozapine in its ability to reduce psychosis without causing significant worsening of motor symptoms. However, it does not cause agranulocytosis and is therefore, the first choice for many clinicians.

Risperidone (Risperdal®) and olanzapine (Zyprexa ®) are two additional "atypical" antipsychotic agents. Unlike clozapine and quetiapine, these drugs may carry a greater risk for aggravating parkinsonian symptoms. Furthermore, there are two new antipsychotic agents on the market that are currently being studied to determine their effectiveness and safety for PD patients. These agents are geodon (Ziprasidone ®) and abilify (Aripiprazole ®).

***Key Point**:* It can take several weeks before antipsychotic medications reach therapeutic levels in the bloodstream and improve psychotic symptoms. These medications must be given an appropriate amount of time to work and should not be discontinued without first consulting your clinician.

Antipsychotic Medications

Table Name	Generic Name
Ability	Aripiprazole
Clozaril	Clozapine
Geodon	Ziprasidone
Haldol	Haloperidol
Lidone	Molindone
Loxitane	Loxapine
Mellaril	Thioridane
Moban	Molindone
Navane	Thiothixene
Orap	Pimozide
Prolixin	Fluphenazine
Risperdal	Fluphenazine
Serentil	Mesoridazine
Seroquel	Quetiapine
Stelazine	Triflioperazine
Taractan	Chlorprothixene
Thorazine	Chlorpromazine
Trialafon	Perphenazine
Vesprin trifluopromazine	Trifluopromazine
Zyprexa	Olanzapine

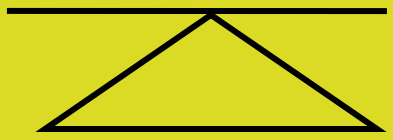
Key:

- First choice antipsychotic medications for PD patients
- Second choice antipsychotic medications for PD patients. Use with caution.
- These medications should not be prescribed for PD patients.

*It is more important to be familiar with antipsychotic medications as many of them can cause worsening of motor symptoms and ***should not*** be prescribed for PD patients. Some of these medications, such as Haldol, are commonly prescribed in the hospital setting for patients who are agitated or anxious. If Haldol is prescribed, it should be given through an IV. This is the only form of Haldol that does not appear to worsen *parkinsonism*. Notify all treating clinicians that older antispsychotics (those medications highlighted in dark gray) should be avoided if possible.

Treatment Goal

The treatment goal for each step throughout this process is to achieve a healthy balance between PD symptom control and management of psychosis.



Treatment of Psychosis Related to Dementia

Acetylcholinesterase inhibitors are medications used to treat memory impairment. They are commonly prescribed early in the management of dementia and include donepezil (Aricept®), rivastigmine (Exelon ®) and galantamine (Reminyl ®). Through research and clinical observations, it has been found that these medications may also be beneficial in treating some forms of psychosis. If not already prescribed, acetylcholinesterase inhibitors should be considered. In addition, antipsychotic therapy may also be necessary for treating dementia with psychosis. Again, quetiapine and clozapine are considered the best antipsychotic medications for PD patients. (Please refer to chapters 3 and 5 for additional information on the treatment of dementia.)

Treatment of Psychosis Related to Delirium

Delirium is generally caused by an acute medical condition. These symptoms should improve once the underlying condition is treated. However, during this process, additional measures are sometimes necessary to reduce unsafe and problematic behavior. These measures are commonly performed in a hospital or inpatient setting. Medications can be prescribed to calm an agitated or aggressive patient. Although these medications can be quite helpful, they can also produce serious side effects in elderly individuals. Two medications frequently used include lorazepam (Ativan ®) and haloperidol (Haldol ®). Again, haloperidol should be avoided in patients with PD when at all possible. In addition to medications, temporary physical restraints may be applied by some facilities. This is a controversial issue that should be closely monitored by the patient's family.

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