**Review Article**

# Role of Psychiatric Nurse for client Receiving Anti-Psychotic Drugs


## Abstract

The prevalence of mental disease is increasing. Even the normal person suffers from minor issues such as stress and anxiety as a result of a variety of causes. Clients having psychiatric consultations require support and special care from a psychiatric nurse; these clients are given various drugs that have varied side effects that must be managed; the nurse is only present with the patient at all times and manages the patient. As a result, this article discusses the numerous roles that a psychiatric nurse can play in this regard.



**Keywords:** Mental Illness, Magnitude, Stress, Anxiety, Psychiatric Nurse.




## Introduction

Antipsychotic drugs, also known as neuroleptics or major tranquillizers, are used to treat schizophrenia as well as to alleviate the symptoms of other psychotic illnesses such as bipolar disorder, psychotic depression, senile psychoses, other organic psychoses, and drug-induced psychoses. People suffering from psychosis can be dangerous to themselves and others at times, but not always. Antipsychotic drugs have both a sedative impact in the near term and a long-term effect of lowering the likelihood of psychotic episodes. The majority of medications are available in oral dose forms (tablets, dry powder, and capsules), however some can also be administered parenterally (intramuscular and intravenous injections). [1]

**Commonly Prescribed Typical and Atypical Antipsychotic Medications**

**Commonly prescribed typical antipsychotics include:**

- Haldol (haloperidol)
- Loxitane (loxapine)
- Mellaril (thioridazine)
- Moban (molindone)
- Navane (thiothixene)
- Prolixin (fluphenazine)
- Serentil (mesoridazine)
- Stelazine (trifluoperazine)
- Trilafon (perphenazine)
- Thorazine (chlorpromazine)

**Commonly prescribed atypical antipsychotics include:**

- Abilify (aripiprazole)
- Clozaril (clozapine)
- Geodon (ziprasidone)
- Risperdal (risperidone)
- Seroquel (quetiapine)
- Zyprexa (olanzapine)

Most psychotropic drugs work best when combined with some form of psychotherapy. Medication can be very helpful in treating and overcoming debilitating symptoms, but

drugs cannot address behaviours, feelings, or the underlying causes of mental health difficulties.[2]

**Types of Antipsychotics**

This category of medications falls into two categories:

1. Typical Antipsychotics, or First-Generation Antipsychotic Drugs. The typical, or conventional, antipsychotics were first developed in the 1950s. Haldol (haloperidol) and Thorazine (chlorpromazine) are the best-known typical antipsychotics. They continue to be useful in the treatment of severe psychosis and behavioral problems when newer medications are ineffective. However, these medications do have a high risk of side effects, some of which are quite severe. In response to the serious side effects of many typical antipsychotics, drug manufacturers developed another category referred to as atypical antipsychotics.[3]
2. Atypical Antipsychotics, or Second-Generation Antipsychotic Drugs. These new medications were approved for use in the 1990s. Clozapine, asenapine, olanzapine, quetiapine, paliperidone, risperidone, sertindole, ziprasidone, zotepine, and aripiprazole are atypical antipsychotic drugs. With the discovery of clozapine in 1959, it became evident that this drug was less likely to produce extrapyramidal effects (physical symptoms such as tremors, paranoia, anxiety, dystonia, etc. as a result of improper doses or adverse reactions to this class of drug) in humans at clinically effective doses than some other types of antipsychotics. Clozapine was categorized as the first atypical antipsychotic drug. This category of drugs has also been of great value in studying the pathophysiology of schizophrenia and other psychoses.[3]

**Mechanism of Action**

Dopamine was discovered and categorized as a neurotransmitter in the late 1950s. There are five pathways, or systems, of dopaminergic receptors in the central nervous system.[4] These systems or pathways include:

- Mesolimbic-mesocortical pathway
- Nigrostriatal pathway

- Medullary-periventricular pathway
- Incertohypothalamic pathway
- Tuberoinfundibular pathway

These pathways affect thinking, cognitive behavior, learning, sexual and pleasure feelings, and the coordination of voluntary movement. Extra firing (production of this neurotransmitter) of dopamine in these pathways produces many of the symptoms of schizophrenia.[4]

Many atypical or second-generation antipsychotics block serotonin (5-HT) receptors in the brain, particularly 5-HT2A receptors—the vital players in schizophrenia. In addition, atypical antipsychotics also act on adrenergic, cholinergic (muscarinic), and histamine receptors.[4]

**Side Effects and Adverse Drug Reactions**

People who take antipsychotic medications may experience negative side effects, such as [5]:

- **Extrapyramidal Effects:** Dystonias, akathisia, tardive dyskinesia, Parkinson's-like symptoms, unwanted movements, ataxia, muscle breakdown, rigidity, tremors, and seizures are some major effects of this category of drugs. The neuroleptic malignant syndrome may occur as well.
- **Effects on the Central Nervous System:** Drowsiness, sedation, and hypnosis occur. Confusion, vertigo, syncope, disturbed sleep, nightmares, and agitation are also reported by various studies. Dementia, amnesia, and loss of memory are some adverse effects. Suicidal ideation in old and young with increased mania, anxiety, agitation, violent behavior, and depression can also be seen in people taking these drugs.
- **Effects on the Cardiovascular System:** Cardiomyopathy is noted in nine out of every 100,000 people using clozapine. Alteration in electrocardiogram (ECG) readings, chest pain, angina, myocarditis, palpitation, tachycardia, edema, phlebitis, and arrhythmias are serious adverse effects. Myocardial infarction (heart attack) occurs in only 1% of people using this category of drug. Orthostatic hypotension—the medical name for the fuzzy feeling you get when standing up to quickly—is very common.

- **Hepatic (Liver) Effects:** These agents increase the serum concentration of alkaline aminotransferase. Reversible liver cell hyperplasia, increase in bilirubin, jaundice, drug-induced hepatitis, and necrosis have been recorded in studies.
- **Gastrointestinal Effects:** Constipation, dry mouth, anorexia, weight gain, increases in pancreatic enzymes, epigastric distress, abdominal cramps, dyspepsia, heartburn, and nausea are some common adverse effects.
- **Genitourinary (Urinary and Reproductive) Effects:** Impotence, delayed and premature ejaculation, testicular swelling, priapism, increased or decreased libido, vaginal itching, enuresis, polyuria, breast engorgement, galactorrhea, and anorgasmia have been reported.
- **Other Effects:** Cases of blurred vision, hot flashes, dry throat, nasal congestion, severe Hyperglycemia, numbness, chills, glaucoma, leukopenia, neutropenia, hyperlipidemia, agranulocytosis, and respiratory depression have been reported.
- **Pregnancy and Lactation:** Antipsychotic drugs can be used in pregnant females since they have shown no teratogenic (development of the fetus or embryo) effects in animal studies. Drugs like clozapine and olanzapine have shown no harm to the fetus. However, during lactation, the metabolites may be disturbed in the milk and could harm the newborn.

**Withdrawal Symptoms**

Withdrawal from antipsychotics should be slow and gradual. A period of at least 15–30 days should be considered for this purpose. Nausea, vomiting, psychotic symptoms, hypertension, and sleep disturbances might come back if sudden discontinuation of therapy occurs.[5]

**Nursing Diagnosis and Intervention**

**Risk of injury related to Central nervous system effects**

**Interventions:**

- Provide different comfort measures to the client like the positioning of legs and arms.
- Provide safety measures to the client to minimize the injuries like raising side rails, adequate lighting.

- Adequate and continuous monitoring of the client after the drug is given to the client.
- Educate the client and family members regarding the side effects of the drug for better understanding and cooperation.[6]

**Impaired physical activity related to the extra pyramidal effect**

**Interventions:**

- Provide a safe environment to the client like removing harmful or injurious objects in the environment.
- Report to the doctor if there are excess tremors.
- Assist the client in performing the activities so that client gets minimal stress out.
- Make the client sit comfortably till the motor restlessness gets relieved.[7]

**Impaired urinary elimination related to drug autonomic side-effect**

Interventions:

- Maintain input-output chart.
- Maintain adequate fluid intake.
- Promotion of normal voiding patterns.
- Administer drugs as per prescription.[6]

**Risk of activity intolerance related to sedation, weakness (side-effects)**

Interventions:

- Minimize the excess exhaustion of the client and provide adequate rest.
- Help the client to perform minor activities if any.
- Educate client and family not to operate any dangerous equipment.[7]

**General responsibilities of a psychiatric nurse**

- The client is instructed not to abruptly stand to prevent falls due to orthostatic hypotension.
- Check vital signs before and after medication.
- The client is instructed to take sips of water frequently for avoiding dry mouth; application of glycerine is also recommended.

- Increased intake of fluid and a high fiber diet is recommended to avoid constipation.
- Educate the client not to drive after taking medication.
- Educate the client to wear full sleeves and eye gears while going out in sun to avoid photosensitivity.

**Conclusion**

The psychiatric nurse has so many responsibilities while giving antipsychotic drugs. There are so many complications and side effects of antipsychotic drugs which can manage by the nurse. This article writes because enhances existing knowledge and awareness that can be applied in daily routine practices.

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