Review Article

Role of Psychiatric Nurse for client Receiving Anti-Psychotic Drugs: A Review Article

Abstract

Mental illness is growing in its magnitude. Even the normal person has minor issues like stress and anxiety due to various factors. The clients receiving the psychiatric consultation need support and special care by a psychiatric nurse, these clients receive various drugs which have various side effects which need to be taken care of. The nurse is only that she is with the patient all the time and she manages the patient. So, this article deals with the various role which a psychiatric nurse can do in this regard.

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

Introduction

Antipsychotic medications sometimes referred to as neuroleptics or major tranquilizers, are prescribed to treat schizophrenia and to reduce the symptoms associated with psychotic conditions such as bipolar, psychotic depression, senile psychoses, various organic psychoses, and drug-induced psychoses. People experiencing psychosis are sometimes, but not always, a danger to themselves and others. Antipsychotic medications have both a short-term sedative effect and the long-term effect of reducing the chances of psychotic episodes. Most drugs are available in oral dosage forms (tablets, dry powder, and capsules), while some can be given in the parenteral form (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 medications produce the best results when paired with some type of psychotherapy. Medication can be of great service in helping a person treat and overcome debilitating symptoms, but pills by themselves cannot address behaviors, emotions, and root causes of mental health issues. If you are prescribed an antipsychotic medication, please consider finding a therapist you trust to help you learn more about what you are experiencing and to help you develop coping strategies to improve the quality of your life.[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

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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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Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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