

HOLY SPIRIT INSTITUTE OF NURSING EDUCATION

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PSYCHATRIC DRUG HANDBOOK 2nd P.B. BSc. Nursing (2022)

PREFACE

In the corridors of the mind, where emotions ebb and flow like tides, psychiatric medications stand as both silent sentinels and formidable architects of change. This book seeks to demystify the realm of psychopharmacology, unraveling the intricate tapestry woven by drugs that strive to alleviate, regulate, and sometimes transform the landscape of mental health.

As we embark on this literary journey, we navigate not only the chemical pathways these medications traverse but also the labyrinth of emotions, stigma, and societal perceptions that accompany them. Through the prism of individual narratives, we witness the intimate dance between hope and uncertainty, as lives are reshaped by the profound influence of psychiatric drugs.

This preface extends an invitation to explore the corridors of the mind, where science converges with personal narratives, shedding light on the dynamic relationship between psychotropic medications and human experience. Welcome to a narrative that transcends the prescription pad, delving into the profound implications of these drugs on the human psyche.

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My dear viewers, hope to see smile on your face, as we have made easy for you to learn about mental health drugs. Our team has toiled hard to make this drug handbook handy for you all

Thank You!!!

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INTRODUCTION

Psychopharmacology is the study of drugs used to treat psychiatric disorders. Medications that affect psychic function, behavior, or experience are called psychotropic medications. They have a significant effect on higher mental functions. Psychopharmacology agents are the first line of treatment for almost all psychiatric ailments nowadays.

With the growing availability of a wide range of drugs to treat mental illness, the nurse practicing in modern psychiatric settings needs to have a sound knowledge of the pharmacokinetics involved, the benefits & potential risks of pharmacotherapy, as well as her role & responsibility.

DEFINITION OF PSYCHOTROPIC DRUG: -

1. A psychotropic drug is any drug that has primary effects on behavior, experience, or other psychological functions.

- (Logman Dictionary of Psychology & Psychiatry)

2. Psychotropic or psychoactive drugs can also be defined as a chemical that affects the brain & nervous system and alters feelings & emotions. These drugs also affect the consciousness in various ways. A broad range of these drugs is used in emotional and mental illnesses. Nurses must be familiar with certain terminologies utilized in medication therapy.

These terms include -

1. EFFICACY: refers to the maximal therapeutic effect that a drug can achieve.

2. **POTENCY:** describes the amount of the drug needed to achieve that maximum effect; lowpotency drugs require higher dosages to achieve efficacy, whereas high-potency drugs achieve efficacy at lower dosages.

3. HALF-LIFE: the time it takes for half of the drug to be removed from the bloodstream. Drugs with a shorter half-life may need to be given once a day.

4. AGONIST: Drugs that activate receptors are termed agonists.

5. ANTAGONIST: Drugs that block receptors are termed antagonists.

CORE CONCEPT

Neurotransmitters: are the chemical messengers that travel from one brain cell to another and are synthesized by enzymes from certain dietary amino acids or precursors.

Receptors: are molecules situated on the cell membrane that are binding sites for neurotransmitters. The synapse separates the two neurons (pre- and postsynaptic cells).



GENERAL GUIDELINES REGARDING DRUG ADMINISTRATION IN PSYCHIATRY

•The nurse should not administer any drug unless there is a written order. Do not hesitate to consult the doctor when in doubt about any medication.

•All medications given must be charted on the patient's case record sheet.

While giving medication:

- Always address the patient by name & make certain of his identification.
- Do not leave the patient until the drug is swallowed.
- Do not allow one patient to carry medicine to another.
- If it is necessary to leave the patient to get water, do not leave the tray within the reach of the patient.
- Do not force oral medication because of the danger of aspiration. This is especially important in stuporous patients.
- Check drugs daily for any change in color, odor & number.
- Bottle should be tightly closed & labeled. Labels should be written legibly & in bold lettering. Poison drugs are to be legibly labeled & to be kept in separate cupboard.
- Make sure that an adequate supply of drugs is on hand, but do not overstock.
- Make sure no patient has access to the drug cupboard.
- Drug cupboards should always be kept locked when not in use. Never allow a patient or worker to clean the drug cupboard. The drug cupboard keys should not be given to patients.

PATIENT EDUCATION RELATED TO PSYCHOPHARMACOLOGY

•Nurses assess for drug side effects, evaluate desired effects, & make decisions about prn (pro re neta) medication.

•Nurses must understand general principles of psychopharmacology & have specific knowledge related to psychotropic drugs.

•Teaching patients can decrease the incidence of side effects while increasing compliance with the drug regimen.

Specific areas of education include the following: -

1. Discussion of side effects: Side effects can directly affect the patient's willingness to adhere to the drug regimen. The nurse should always inquire about the patient's response to a drug, both therapeutic responses & adverse responses

2. Drug interactions: Patients & families must be taught to discuss the effects of the addition of over-the-counter drugs, alcohol & illegal drugs to currently prescribed drugs.

3. Discussion of safety issues: Because some drugs, such as tricyclic antidepressants, have a narrow therapeutic index, thoughts of self-harm must be discussed.

- Discuss abruptly discontinued effects
- Many psychotropic drugs cause sedation or drowsiness, discussions concerning the use of hazardous machinery, and driving must be reviewed

4. Instructions for older adult patients: Because older individuals have a different pharmacokinetic profile than younger adults, special instructions concerning side effects & drug-drug interactions should be explained.

5. Instructions for pregnant or breastfeeding women: As pregnant or breastfeeding patients have special risks associated with psychotropic drug therapy, special instructions should be tailored for these individuals. Teaching patients about their medications enables them to be mature participants in their care & decreases undesirable side effects.





DRUG NAME	DOSE ROUTE	ACTION	INDICATION / CONTRAINCATION	SIDE EFFECT	NURSES RESPONSIBILTY
Haloperidol Classification Dopamine receptor Antagonist butyrophenone	Oral 0.5- 100mg/ml Parental 5 to 100mg/ml	Mechanism of action Antipsychotic antiemetic Antidyskinetic agent that competitively blocks post-synaptic dopamine receptor interrupts nerve impulse movement and increase the turnover of dopamine in the brain Pharmacokinetics Metabolized by liver; excreted in urine, bile; crosses placenta; enters breast milk protein binding 92%; terminal half-life 12-36 hr (metabolites)	 Indication Psychotic disorder in schizophrenia and schizoaffective disorder Mania -Depression with psychotic syndrome -Delirium Dementia -Mental disorder due to medical condition -Tourette's syndrome -Huntington's syndrome -Huntington's syndrome Contraindication -Angle-closure glaucoma -CNS depression -Severe cardiac disease -Severe hepatic disease -Parkinson's disease -Myelosuppression 	 Blurred vision Constipation Orthostatic Dry mouth Peripheral edema Difficulty urination Decrease Thirst Dizziness Decrease sexual function Drowsiness Nausea, vomiting Photosensitivity Lethargy Parkinson Akathisia 	 Assess patients' behavior and emotional status Susceptible dystonia Orthostatic hypotension Extrapyramidal and anticholinergic effects Casual uses in cardiovascular disease Watch for hepatic and renal dysfunction 21-gauge needle for IM use Monitor BP while lying and standing Avoid alcohol Avoid to exposure to sunlight that may cause dehydration

Risperidone Oral: O.5 to Mg/dayOral: O.5 to mg/dayMechanism of Action Antiserotonergic, antiastrenergic action. It has less action as antidopaminegic especially D2 receptors.Indications · -Positive and negative schizophrenia, · -Other psychosis · schizoaffective symptoms.· CNS: Somnolence, · bedache · CVS: Orthostatic · headache · CVS: Orthostatic · hypotension · dizziness · active metabolizer · Hypersensitivity · -Heart disease · -Parkinsonism · -Hepatic impairment· CNS: · Somnolence, · seizures, · headache · CVS: Orthostatic · hypotension · dizziness · assess for bloc · headache · CVS: Orthostatic · hypotension · dizziness · -Hypersolactinemia · -Hyperprolactinemia · -Parkinsonism · -Heart disease · -Parkinsonism · -Heart impairment · -Heart impairment · -Heart impairment · -Heart disease · -Parkinsonism · -Heart impairment · -Heart im	RUG NAME	DOSE ROUTE	ACTION	INDICATION / CONTRAINCATION	SIDE EFFECT	NURSES RESPONSIBILTY
Take measures reduce constipatio avoid alcohol durin therapy	Risperidone Classification Atypical anti- psychotic serotonin dopamine antagonist	Oral: 0.5 to 6 mg/day	Mechanism of Action Antiserotonergic, antiadrenergic and antihistaminergic actions. It has less action as antidopaminergic especially D2 receptors. Pharmacokinetics PO: Extensively metabolized by liver to major active metabolite, determined by poor metabolizer or average metabolizers; plasma protein binding 90%, peak 1-2 hr, excreted 90% in urine, terminal half-life 3-24 hr	 Indications -Positive and negative symptoms of schizophrenia, -Other psychosis schizoaffective symptoms. Contraindications -Hypersensitivity -Heart diseases -Epilepsy -Hyperprolactinemia -Parkinsonism -Renal impairment -Hepatic impairment 	 CNS: Somnolence, seizures, headache CVS: Orthostatic hypotension dizziness tachycardia syncope Other adverse reactions: Weight gain constipation, erectile dysfunction, vomiting, rash, abdominal pain. 	 Assess for blood urea nitrogen levels serum alkaline phosphatase bilirubin, creatinine, renal, and hepatic functions. Assess for behavioural and emotional status The elderly may require a dosage adjustment Monitor the patient's BP, heart rate, Observe the patient for fine tongue movement Monitor for neuroleptic malignant syndrome. Take measures to reduce constipation. avoid alcohol during therapy



DRUG NAME	DOSE	ACTION	INDICATION /	SIDE EFFECT	NURSES
	ROUTE		CONTRAINCATION		RESPONSIBILITY
				· ·	
IMIPRAMINE	/5-300 mg per	-Blocking the reuntake	Indications: O- Other psychotic	 Autonomic: Dry mouth 	 Monitor Vital
	duy ordiny	of norepinephrine (NE)	C-childhood	constipation,	 High fibre diet
Classification:		and serotonin (5-HT) at	D-Depression	urinary retention,	
Tertiary tricyclic		the nerve terminals, thus increasing NE and 5 HT	M- Medical disorder	hypotension,	 Perform CBC
antidepressant drugs		levels at the receptor site.	Contraindications:	 -GNS: Sedation, 	• Plan ECG if risk for
		-Regulation of the beta-	 -Cardiac disorders -Acute recovery 	tremors, seizures.CVs: arrhythmias	arrhythmias
		adrenergic receptors.	period after MI	direct myocardial	• Give with food or
			 use within 14 days of 	depression.	milk
			MAOIS.	cholestatic	 Do not crush the tab
				jaundice.	Children below 6
				Weight gain,	recommended
				insomnia,	
				tiredness	 Assess the elimination
					pattern

DRUG NAME	DOSE ROUTE	ACTION	INDICATION / CONTRAINCATION	SIDE EFFECT	NURSES RESPONSIBILITY
SERTRALINE HYDROCHLORIDE Classification: Antidepressant- Serotonin-Specific reuptake inhibitors.	50-200 mg	MechanismofactionSelectivelyserotoninuptakeinthe CNS,enhancingserotonergicfunction.It blocks the reuptakeoftheneurotransmitter	 Indications: -Depression -Obsessive-compulsive disorder (OCD) -Panic disorder and other anxiety disorders -Bulimia nervosa -Premenstrual dysphoric disorder. Contraindications: -Hypersensitivity -Severe hepatic or renal impairment -Pregnancy -Lactation -History of seizures. 	 -Headache -Nervousness -Drowsiness -Anxiety -Seizures -Rarely EPS apathy -Anorexia -Nausea -Diarrhoea -Sexual dysfunction. -Insomnia 	 Perform complete blood count (CBC), Use cautiously in patients with cardiac dysfunction, diabetes, Perform complete blood count (CBC), Use cautiously in patients with cardiac dysfunction, diabetes, or seizures Give with food or milk* Assess the patient's pattern of daily bowel and stool Urge the patient to avoid alcohol



DRUG NAME	DOSE ROUTE	ACTION	INDICATION /	SIDE EFFECT	NURSES
			CONTRAINCATION		RESPONSIBILITY
LITHIUM	900 to	Mechanism of action	Indication:	 -Nausea 	Taken regular base
	2100mg		 -Acute mania 	 -Vomiting 	 Drink more water
CLASSIFICATION:	BD/TDS	Inhibitor and release	 -Schizoaffective 	 -Hypertension 	• Serum lithium
Mood stabilizer	blood lithium	catecholamine	disorder	 -Polyuria 	evaluation
	level	Postsynaptic receptors	 -Impulsive aggression 	 -Lithium 	 Regular follow-up
	0.8 to	sensitivity	 Borderline 	toxicity	• Side effects should
	1.2meq/lit	Decrease	personality disorder	 -Weight gain 	notify
	lithium toxicity	catecholamine activity	 Bulimia nervosa 	 -Muscular 	• Monitoring of patient
	level	Decrease mania		weakness	

DRUG NAME	DOSE ROUTE	ACTION	INDICATION / CONTRAINCATION	SIDE EFFECT	NURSES RESPONSIBILITY
SODIUM VALPROATE CLASSIFICATION: Mood stabilizer	15mg/kg/day Orally	Mechanism of action Acts on Gama aminobutyric acid GABA transaminase Increased cone of GABA in the brain Inhibit: 1] presynaptic disorder 2]postsynaptic discharge	 INDICATION: -Aute mania -Prophylactic treatment of bipolar disorder -Rapid cycling bipolar disorder -Schizoaffective disorder -Seizures Other disorders like -Bulimia nervosa -Obsessive compulsion disorder -Agitation and PTSD 	 -Stomach pain -Dry or sore mouth -Feeling tired -Headache -Weight gain -Shake body parts -Diarrhoea 	 Drugs taken immediately after a meal To reduce GI Irritation Regular follow-up Periodic examination The therapeutic serum level has to be checked Side effects should be notified



DRUG NAME	DOSE	ACTION	INDICATION /	SIDE EFFECT	NURSES
	ROUTE		CONTRAINCATION		RESPONSIBILITY
PHENOBARBITAL OTHER NAME Phenobarbitone Phenobarb CLASSIFICATION Barbiturates	Smg/1kg - P/O, IV - OD	Mechanism of actionIncreases in the amountof chloride channels areopenDepressingCNSdepressionActing on GABA -ReceptorsPharmacokineticCompletelyabsorbedafter P/OMetabolized in liver	INDICATION CONTRAINCATION Indications - Status epilepticus - Hyperbilirubinemia - Pruritis - Cerebral irritation - Seizures - Sedative - Hypnotic - Encephalopathy - Neonatal seizures Contraindications - Hypersensitivity - Latent porphyria - Liver impairment - Nephrotic syndrome	 -Dizziness -Drowsiness -Excitation -Headache -Tiredness -Loss of appetite -Vomiting 	 Assess CNS status Assess CNS status Assess the patient's seizures Assess BP monitoring Assess laboratory value Monitor fluid balance Monitor pulmonary status

DRUG NAME	DOSE	ACTION	INDICATION /	SIDE EFFECT	NURSES
	ROUTE		CONTRAINCATION		RESPONSIBILITY
LORAZEPAM		Mechanism of action	Indication	 Drowsiness 	 Administer slowly
	2-6mg P/O,	Binds to benzodiazepine	 -Seizure 	 -Dizziness 	 Dilution
OTHER NAME	IV, IM - BD,	receptor	 -Spasms 	 -Loss of 	
Tab. Ativan	TDS	Postsynaptic GABA-A	 -Alcohol withdrawal 	coordination	 Monitor
o - choroxazepam		ligand-gated chloride	 -Insomnia 	 -Headache 	respiratory rate
I		canal neuron	 -Anxiety disorder 	 -Nausea 	after IV dose
CLASSIFICATION		Several sites within the		 Blurred vision 	
A) Benzodiazepine		CNS	Contraindications	 -Change in sexual 	 Assess side effects
1) short Acting		Increases the	 Hypersensitivity 	interest	
		conductance of chloride	 -Acute narrow-angle 	 -Constipation 	
		ions in the cell	glaucoma	 -Heartburn 	
			 -CNS depression 	 -Change in 	
		Pharmacokinetics	 -Acute pulmonary 	appetite	
		Well absorbed P/O	insufficiency		
		Peak concentration	 -Sleep apnoea 		
		within 2 hrs			
		Crosses the blood/brain			
		barrier freely by passive			
		diffusion			



DRUG NAME	DOSE	ACTION	INDICATION /	SIDE EFFECT	NURSES
	ROUTE		CONTRAINCATION		RESPONSIBILITY
SELEGILINE		Mechanism of action	Indication	 -Increased 	• Assess the BP
	5-10mg Per	Increase dopaminergic	 -Major depression 	tremors	
CLASSIFICATION	oral BD	activity by inhibition of	 -OCD 	 -Dizziness 	• Assess the seizures
Antiparkinsonian		MAOI type B activity,	 -PTSD 	 -Mood change 	
agent		not fully understood	 -Panic disorder 	Anxiety	• Assess the MSE
480111			 -Social anxiety 	 -Vertigo 	
CHEMICAL		Pharmacokinetics	disorder	 -Lethargy 	• Assess the cause of
NAME		 Absorption 40- 			orthostatic
MAOI type R		90min	Contraindications		hypotension
MAOI type D		 Rapidly 	 -Hypersensitivity 		Manitan flyid balance
		Metabolized	 -Hypertensive crisis 		• Monitor huid balance
		 Protein binding up 	 -Suicide 		
		to 85%			
		10 0070			





CONCLUSION

This book has delved into the crucial function that these drugs perform for dealing with mental health disorders by exploring the intricate landscape of psychiatric medications From their historical development to their various modes of action, we've seen the remarkable impact these medicines have on relieving symptoms and improving the quality of life for countless people.

Despite these advances, we are reminded of the complexities of mental health and the necessity for tailored holistic interventions. Side effects, stigma, and accessibility remain issues, highlighting the importance of continued research, new medicines, and compassionate care. As we end, let us push for continuous innovation, empathy, and cooperation, encouraging a future in which psychiatric drugs adapt to better serve the different needs of persons navigating the complex landscape of mental health.

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