

HOSPITAL FORMULARY

First Edition

April 2010



DEPARTMENT OF PHARMACY

PUNJAB INSTITUTE OF MENTAL HEALTH LAHORE

CONTENTS

	Page No.
Preface	1
Forward	2
Introduction	3
Pharmacy and Therapeutics Committee	4
Guidelines for prescribers	5
Section 1: Psychiatric medicines	6
1.1 Antipsychotics	6
1.2 Antidepressants	7
1.3 Anxiolytics	8
1.4 Antiepileptics and mood stabilizers	9
1.5 Nootropics/ Neurotonics	10
1.6 Antioxidants	10
1.7 Antiparkinsonian	10
1.8 Antagonists for central & respiratory depression	11
1.9 Drugs used in substance dependence	11
1.10 Drugs used in neuromuscular disorders	11
1.11 CNS stimulants	12
1.12 Antimigraine	12
Section 2: Medicines Other Than Psychiatry	13
2.1 Antibiotics	13
2.2 Antivirals	14
2.3 Antifungal	14
2.4 Antituberculosis	14
2.5 Antimalarials	14
2.6 Hypoglycemics	14
2.7 Diuretics	15
2.8 Antacids / H ₂ blockers	15
2.9 Antispasmodic	15
2.10 Laxatives	15
2.11 Antidiarrhoeals	15
2.12 Anthelmintics	15
2.13 Anesthetics	16
2.14 Emergency medicines	16
2.15 Antihypertensives	16
2.16 Hypolipidaemics	17
2.17 Lipotropics.	17
2.18 Antithrombotics	17
2.19 Vitamins, minerals and haematonics	17
2.20 Dermatologicals	17
2.21 Vaccine & Antisera	18
2.22 Analgesics	18
2.23 Antigout	18
2.24 Antihistamines	18

2.25	Antiasthmatics / bronchodilatore	18
2.26	Cough syrups	19
2.27	Eye drops	19
2.28	Hormones	19
Section 3	Intravenous Fluids	20
Section 4	Contrast Medias	20
Section 5	Dental gels and pastes	20
Section 6	Antiseptics and Disinfectants	20
Section 7	Surgical items	21
 APPENDICES		
•	Formulary changes	22
•	Application form for the addition / deletion of a drug from the Hospital formulary	23
•	Medication error report	24

PREFACE

Punjab Institute of Mental Health, Lahore is the oldest and largest Institute for treating mentally sick patients. It is a 1400 bedded Institute where patient from every nook and corner of the country report for treatment. This Institute serves 6000-7000 Indoor patients per year and 500-600 patients per day on Outdoor basis. The Institute serves patients of all categories ranging from depressive illness to schizophrenia. This Institute provides free of cost medicines, boarding and lodging facilities to all patients, inmates and destitute.

This is the 1st formulary since the establishment of this Institute. This formulary is prepared with the intention to achieve optimal patient care and safety through rational drug therapy. This covers all the medicines required for treatment and rehabilitation of mentally sick patients.

DR. NUSRAT HABIB RANA
Executive director
Punjab Institute of Mental Health,
Lahore

FORWARD

I feel immense pleasure to write forward of the hospital formulary of Punjab Institute of Mental Health (PIMH). I am also feeling pride as the assignment given by the Executive Director has been accomplished.

I enjoyed full cooperation and assistance by Mr. Muhammad Tayyab & Mst. Shazia Anwar both pharmacists of this institute. I am grateful to all the members of the Pharmacy and Therapeutic Committee who extended cooperation for selection of drugs to be included in the formulary.

I am also thankful to Mr. Umair and Ms. Zohra computer operators, for their cooperation in composing and compilation of formulary.

Future suggestions will be warmly welcomed.

DR. AHSAN MAHMUD GONDAL
Deputy Medical Superintendent (Stores)
Punjab Institute of Mental Health,
Lahore.

INTRODUCTION:

Hospital Formulary of Punjab Institute of Mental Health comprises the essential drugs required to meet the health care needs of psychiatric patients.

The formulary is compiled with the technical support of P&T Committee. The selection of formulary drugs has been made after careful evaluation of medicine needs based on the disease. Efficacy, safety and patient outcome has also been taken into consideration.

The updating of formulary is a continuing process, which takes into account the changing health care needs of the patients as well as progress in the field of medicine. P&T Committee will ensure that the list is updated periodically. A formal application to the P&T Committee is also required for inclusion of new or non-formulary drug in next edition after approval. A form is also attached at the end for this purpose. Prescriber is required to send the demand of a non-formulary drug with reason to Department of Pharmacy. That may be arranged after evaluation by the P&T Committee.

Prescribing guidelines have been developed to encourage rational drug use and to minimize medication errors.

General recommendation and cautions are inserted after each subsection to guide prescribers towards a rational choice of treatment. BNF can be consulted for reference, if required.

In case of medication error, the matter should be reported to the Pharmacy Department through a formal report form, which is needed to be duly filled by doctor, nurse & pharmacist for necessary action.

Department of Pharmacy may be contacted for any further queries.

MUHAMMAD TAYYAB

Pharmacist Central Pharmacy & Purchase
Secretary P&T Committee
PIMH, Lahore.

PHARMACY AND THERAPEUTICS COMMITTEE.

ORGANISATION:

The Pharmacy and the therapeutics Committee is a standing committee of Punjab Institute of Mental Health appointed by the executive director of the Institute. The committee comprises representatives from the medical and pharmacy staff.

Committee:

1. Dr. Nusrat Habib Rana----- Chairperson
(Executive Director/ Chief Consultant)
2. Dr. Zulfiqar Rizvi ----- Member
(Consultant Psychiatrist unit E)
3. Dr. Haider Imam -----Member
(In charge Male Special Care unit)
4. Dr. Ahsan Mehmud Gondal ----- Member
(D.M.S Stores)
5. Mr. Muhammad Tayyab----- Secretary
(Pharmacist Central Pharmacy)

OBJECTIVES AND TERMS OF REFERENCE:

Objective:

- a) To achieve optimal patient care and safety through rational drug therapy.
- b) To prepare a readily available list of drugs. This will help for preparing annual indent of drugs and purchase of drugs.

Terms of Reference:

- a) To advise the medical staff, the hospital administration and the Pharmacy staff on all matters pertaining to the use of drugs.
- b) To study problems related to the usage and monitoring of the medication including the medicine indents.
- c) To control and monitor the use of expensive medicines.
- d) To develop and to maintain the Hospital formulary for drugs

GUIDELINES FOR PRESCRIBERS

The following points are a guide for writing prescriptions / charts in an attempt to help reduce medication and prescribing errors.

A. OUTDOOR PRESCRIPTION

1. **Sign and date on all prescriptions-** This is a legal requirement.
2. **Generic names** (not brand name) of drugs should be used. This will enable any suitable drug to be dispensed, thereby saving delay to patient.
3. **Write out full name of drug.** Un-official abbreviation should not be used. They may be misinterpreted.
4. **For any dose changes** always cross off original drug & dose (signature and date when stopped) then re-write the drug with new dose.
5. **Always specify the route and time of administration.**
6. **Contents of an ideal prescription.**
 - a) Patient's Registration Number.
 - b) Patient's full name and address.
 - c) Age of patient.
 - d) Sex of patient.
 - e) Diagnosis.
 - f) Treatment prescribed with strength and doses of drug.
 - g) Instructions about route and time of administration.
 - h) Signature of prescriber with date.
7. **If pharmacist receives an incomplete prescription, he/ she should not dispense medicine without clarification from prescriber.**

B. INDOOR PATIENTS CHART

1. Always write the date on which the drug was started.
2. Preferably, the reason for starting or stopping of a drug should be written on the chart.
3. Make sure that the nurse administering the drug to the patient is aware of new prescription in terms of correct dose & time of administration.

SECTION 1

PSYCHIATRIC MEDICINES

1.1-ANTI PSYCHOTICS

(Dopamine Receptor Antagonist)

a) Typical Antipsychotics:

- | | | |
|----|------------------------|---|
| 1. | Haloperidol | Tab 5 mg, 10 mg
Inj 5 mg / ml, depot inj 100 mg (deconate)
Liquid 2 mg / ml |
| 2. | Chlorpromazine | Tab 25 mg, 100 mg
Inj 50 mg/ 2ml |
| 3. | Trifluoperazine | Tab 5 mg |
| 4. | Flupenthixol | Tab 0.5 mg, 1 mg, 3 mg
Depot Inj 20 mg /1ml,
40 mg / 2ml, 100 mg / 1ml |
| 5. | Zuclopenthixol | Tab 10 mg, 25 mg
Accuphase Inj 50 mg, 100 mg Depot
200 mg / ml |
| 6. | Fluphenazine Decanoate | Inj 25 mg / ml Depot |

b) Atypical Antipsychotics:

- | | | |
|----|---------------|---|
| 1. | Risperidone | Tab 1 mg, 2 mg, 3 mg, 4 mg
Oral solution 1 mg / ml |
| 2. | Olanzapine | Tab 5 mg, 10 mg |
| 3. | Quetiapine | Tab 25mg, 100 mg, 200mg |
| 4. | Clozapine | Tab 25 mg, 100 mg |
| 5. | Levosulpiride | Tab 25 mg, 50 mg, 100 mg |
| 6. | Aripiprazole | Tab 15 mg, |
| 7. | Ziprasidone | Tab 20 mg, 40 mg, 60 mg |

Cautions: CNS depression, hepatic impairment, renal impairment, cardiovascular disease, parkinson's disease, epilepsy, prostatic hypertrophy, pregnancy and breast feeding.

General Recommendation:

Prescribing of more than one antipsychotic at same time is not recommended.

Neuroleptic malignant syndrome is a rare but potentially fatal side effect of some drugs. Discontinuation of antipsychotic drugs is essential because there is no proven effective treatment, but cooling, bromocriptine has been used.

1.2- ANTIDEPRESSANTS

a) Tetracyclic Antidepressants:

1. Maprotiline Tab 10 mg, 25 mg
2. Mianserin Tab 10 mg, 30 mg

b) Tricyclic And Related Antidepressants:

1. Imipramine Tab 10 mg, 25 mg, 75 mg
2. Amitriptyline Hcl Tab 25 mg, 75 mg
3. Nortriptyline Tab 25 mg, 75 mg
4. Dothiepin Hcl Tab 25 mg, 75 mg
5. Trazodone Hcl Tab 50 mg, 100 mg
6. Clomipramine Hcl Tab 10 mg, 25 mg, 75 mg
7. Nortriptyline + Fluphenazine Tab 10 mg + 500 mcg

c) SSRI'S (Selective Serotonin Reuptake Inhibitor)

1. Fluoxetine Cap 20 mg, Syp
2. Fluvoxamine Tab 50 mg, 100 mg
3. Sertraline Tab 50 mg, 100 mg
4. Citalopram Tab 10 mg, 20 mg
5. Escitalopram Tab 5 mg, 10 mg, 20 mg
6. Paroxetine Tab 20mg, XR, 12.5mg, 25mg

d) SNRI'S (Serotonin Nor-adrenaline Reuptake Inhibitor)

1. Venlafaxine Tab 37.5 mg, XR 75 mg, 75 mg
2. Duloxetine Tab 20 mg, 30 mg, 60 mg
3. Mirtazapine Tab 15 mg, 30 mg

e) NDRI'S (Nor-adrenaline Dopamine Reuptake Inhibitor)

1. Bupropion Hcl Tab SR 75 mg

f) SSRE (Selective Serotonin Reuptake Enhancer)

1. Tianeptine Sodium Tab 12.5 mg

Cautions:

Tricyclic antidepressants: Myocardial infarction, arrhythmias, history of epilepsy, thyroid disease, hepatic and urinary retention.

SSRIs: epilepsy, concurrent electroconvulsive therapy, hypernatraemia and pregnancy.

SSRI should not be used if patient enters a manic phase. Dose monitoring is advised in young adults having suicidal behavior. SSRI also impair performance of skilled tasks.

Fluoxetine should not be used in children under age of 8 yrs and breast feeding mothers.

Duloxetine is contraindicated in pregnancy, severe hepatic and renal impairment.

Bupropion should be used with caution in seizures, hepatic & renal impairment, if there is risk of suicidal behavior in children & adult less than 18 year age with MDD.

1.3- ANXIOLYTICS

a) Benzodiazepines:

1.	Diazepam	Tab 2 mg, 5 mg, 10 mg Inj 10 mg / 2 ml
2.	Lorazepam	Tab 1 mg, 2 mg
3.	Bromazepam	Tab 1.5 mg, 3 mg
4.	Clobazam	Tab 10 mg
5.	Clonazepam	Tab 0.5 mg, 2 mg, Drops 0.25 %
6.	Chlorazepate	Cap 5 mg, 10 mg, 15 mg
7.	Alprazolam	Tab 0.25 mg, 0.5 mg, 1mg
8.	Temazepam	Cap 30 mg
9.	Midazolam	Tab 7.5 mg Inj 5 mg / 5 ml
10.	Lormetazepam	Tab 1 mg
11.	Fludiazepam	Tab 0.25 mg
12.	Estazolam	Tab 1 mg, 2 mg
13.	Nitrazepam	Tab 5 mg
14.	Chlordiazepoxide + clidinium bromide	Dregees 5 mg + 2.5 mg

b) Non Benzodiazepines:

1.	Etifoxine	Cap 50 mg
2.	Zolpidem	Tab 10 mg
3.	Buspirone Hcl	Tab 5 mg
4.	Hydroxyzine	Tab 10 mg, 25 mg
5.	Niaprazine	Syp 3 mg/ ml

c) Sedative / Hypnotic

1.	Chloral Hydrate	Liquid 500 mg / 5 ml
----	-----------------	----------------------

Cautions:

Respiratory depression, acute pulmonary insufficiency, history of drug or alcohol abuse, personality disorder, hepatic and renal impairment.

A paradoxical increase in aggression may be reported by patients taking benzodiazepines. The effects range from talkativeness & excitement to aggressive & antisocial acts.

High doses during late pregnancy or labour may cause neonatal hypothermia and respiratory depression.

Benzodiazepines are present in milk so avoid if possible during breast feeding.

General Recommendations:

Anxiolytics may impair judgment and retention time so avoid performing skilled tasks like driving.

Hypnotics should be avoided in elderly who are at risk of becoming ataxic & confused and so liable to fall or injure themselves.

Withdrawal of benzodiazepines should be gradual b/c abrupt withdrawal may produce confusion, toxic psychosis and convulsions.

1.4- ANTIEPILEPTICS AND MOOD STABILIZERS

a) Antiepileptics

- | | | |
|-----|-------------------|--|
| 1. | Phenobarbitone | Tab 30 mg
Elixir 20 mg / 5 ml |
| 2. | Phenytoin Sodium | Cap 100 mg |
| 3. | Carbamazepine | Tab 200 mg, 400 mg
Susp 100 mg / 5 ml |
| 4. | Oxcarbazepine | Tab 150 mg, 300 mg, 600 mg |
| 5. | Sodium Valproate | Tab 200 mg,
Liq 200 mg / 5 ml |
| 6. | Divalproex sodium | Tab 250 mg, 500 mg,
Syp 250 mg / 5 ml |
| 7. | Topiramate | Tab 25 mg, 50 mg, 100 mg |
| 8. | Lamotrigine | Tab 25 mg, 50 mg, 100 mg |
| 9. | Gabapentin | Cap 100 mg, 300 mg, 400 mg |
| 10. | Pregabalin | Tab 75 mg, 100 mg, 300 mg |
| 11. | Levetiracetam | Tab 250 mg, 500 mg |

b) Mood Stabilizers

- | | | |
|----|-------------------|------------|
| 1. | Lithium Carbonate | Tab 400 mg |
|----|-------------------|------------|

Cautions:

Antiepileptics: Renal impairment, glaucoma and cardiac disease.
Antiepileptics should be avoided in blood, hepatic or skin disorders.

Lithium Carbonate: Renal impairment, parkinsonism, hypothyroidism, pregnancy.

There is an increased risk of teratogenicity associated with use of antiepileptics, in particular with carbamazepine, oxcarbamazepine, phenytoin and valproate. To counteract risk of neural tube defects Folic acid 5 mg daily and to avoid risk of neonatal bleeding prophylactic Vitamin K before delivery is recommended.

Interactions between antiepileptic are complex and may enhance toxicity without a corresponding increase in antiepileptic effect.

1.5- NOOTROPICS / NEUROTONICS

- | | | |
|-----|--|--|
| 1. | Piracetam | Tab 400 mg, 800 mg
Syp 1000 mg per 5 ml |
| 2. | Co- dergocrine Mesylate. | Tab 1.5 mg, 4.5 mg, Inj 0.3 mg
(1 ml) |
| 3. | Pyritinol | Tab 100 mg
Liquid |
| 4. | Ginkgo Biloba extract | Tab 250 mg |
| 5. | Citicoline | Inj 250 mg, Tab 500mg |
| 6. | Donepezil Hcl | Tab 5 mg |
| 7. | Rivastigmine (Acetylcholinestrace inhibitor) | Cap 1.5 mg, 3 mg, 4.5 mg, 6 mg |
| 8. | Memantine Hcl (NMDA antagonist) | Tab 10 mg |
| 9. | Galantamine (Nicotinic receptor modulator and acetylcholinestrace inhibitor) | Tab 4 mg, 8 mg |
| 10. | Choline Alfoscerate (Acetylcholine precursor) | Cap 400 mg |

Cautions:

Piracetam : Cerebral hemorrhage, hepatic impairment, pregnancy.

Rivastigmine, Memantine and Galantamine: Breast feeding.

1.6- ANTIOXIDANTS

- | | | |
|----|--------------|--------------------|
| 1. | Vitamin E | Cap 200 mg, 400 mg |
| 2. | Sulbutiamine | Tab 200 mg |

1.7- ANTIPARKINSONIAN

a) Dopaminergic Drugs

- | | | |
|----|----------------------|-------------------------|
| 1. | Amantadine Hcl | Tab 100 mg |
| 2. | Bromocriptine | Tab 2.5 mg |
| 3. | Levodopa + Carbidopa | Tab 250 mg + 25 mg |
| 4. | Selegiline Hcl | Tab 5 mg |
| 5. | Ropinirole | Tab 0.25 mg, 1 mg, 2 mg |

Antimuscarinic Drugs

b)

- | | | |
|----|--------------|-----------------------------------|
| 1. | Benzhexol | Tab 2 mg |
| 2. | Procyclidine | Tab 5 mg, 10 mg
Inj 10 mg/2 ml |

Cautions:

Bromocriptine, Amantadine has been associated with pulmonary, retroperitoneal and pericardial fibrotic reactions. Before starting treatment it may be appropriate to measure ESR, serum creatinine and to obtain a chest X-ray.

Benzhexol, Procyclidine can cause confusion and paranoid state in elderly.

1.8- ANTAGONISTS FOR CENTRAL & RESPIRATORY DEPRESSION

a) Opiate Antagonist

- | | | |
|----|-------------|------------------------------|
| 1. | Naloxone | Tab 0.5 mg
Inj 0.4 mg/ ml |
| 2. | Pentazocine | Tab 25 mg,
Inj 30 mg / ml |

b) Benzodiazepine Antagonist

- | | | |
|----|------------|----------------------|
| 1. | Flumazenil | Inj 1000 mcg / 10 ml |
|----|------------|----------------------|

Cautions:

Flumazenil: Panic disorder and status epilepticus.

1.9 DRUGS USED IN SUBSTANCE DEPENDANCE

a) Antismoking Drugs

- | | | |
|----|--|-------------------|
| 1. | Varenicline (Nicotinic receptor agonist) | Tab 500 mcg, 1 mg |
|----|--|-------------------|

1.10- DRUGS USED IN NEUROMUSCULAR DISORDERS

a) Skeletal Muscle Relaxant

- | | | |
|----|--|-----------|
| 1. | Baclofen (GABA agonist) | Tab 10 mg |
| 2. | Orphenadrine (Central anticholinergic) | Tab 35 mg |

b) Anticholinestrases

- | | | |
|----|-------------|------------------|
| 1. | Neostigmine | Inj 2.5 mg/ 5 ml |
|----|-------------|------------------|

Cautions:

Baclofen: Peptic ulcer.

Neostigmine: Intestinal or urinary impairment.

**1.11- CNS STIMULANT
(Attention Deficit Hyperactivity Disorder)**

- | | | |
|----|---|--------------------|
| 1. | Methylphenidate Hcl | Tab 10 mg |
| 2. | Atomoxetine (Selective NE reuptake inhibitor) | Cap 40 mg |
| 3. | Modafinil (Non Amphetamine) | Tab 100 mg, 200 mg |

1.12- ANTI MIGRAINE

- | | | |
|----|---|---------------------------|
| 1. | Ergotamine + Cyclizine + Caffeine | Tab 2 mg + 50 mg + 100 mg |
| 2. | Flunarizine (Selective Ca agonist) | Cap 5 mg |
| 3. | Prochlorperazine (Phenothiazine) | Tab 5 mg |
| 4. | Sumatriptan (5HT ₁ agonist) | Tab 25 mg , 50 mg |
| 5. | Zolmitriptan (5HT ₁ agonist) | Tab 2.5 mg |

Contraindications:

5-HT₁ agonists (Smatriptan and Zolmitriptan) are contraindicated in ischemic heart disease, myocardial infarction and severe hypertension.

SECTION 2

MEDICINES OTHER THAN PSYCHIATRY

2.1- ANTIBIOTICS

- a) Tetracycline:**
1. Doxy cycline Caps 100 mg
- b) Penicillin:**
1. Amoxycillin Caps 500 mg
Syp 250 mg / 5 ml
Inj 500 mg
2. Co Amoxiclav (Amoxicillin + Clavulanic acid) Tab 625 mg , 1g
Inj 600 mg
- c) Cephlosporin::**
1. Ceftriaxone Powder for Inj 250 mg, 1g
2. Cephradine Cap 500 mg
Inj 500 mg, 1g
3. Ceftazidime Powder for Inj 500 mg, 1g
4. Cefixime Tab 200 mg , 400 mg
5. Cefotaxime Inj 500 mg, 1g
- d) Macrolide:**
1. Clarithromycin Tab 500 mg,
Inj 500 mg
- e) Quinolone:**
1. Ciprofloxacin Tab 250 mg , 500 mg
Inj 200 mg
2. Ofloxacin Tab 200 mg
3. Levofloxacin Injection 500 mg
- f) Aminoglycoside:**
1. Amikacin Inj 250 mg, 500 mg
- g) Others:**
1. Clindamycin Cap 150 mg , 300 mg
Inj 300 mg / 2 ml
2. Lincomycin Cap 500 mg,
Inj 600 mg
3. Metronidazole Tab 200 mg, 400 mg
Inj 500 mg,
susp 200 mg / 5 ml

Cautions:

Penicillins: Hypersensitivity and penicillin related jaundice.

Ceftriaxone: Neonates with jaundice, donot advice with calcium

Macrolide: Arrythmias, hepatic and renal impairment.

Amikacin: Ototoxicity, Nephrotoxicity

Quinolones can cause CNS stimulation

Metronidazole: Hepatic Impairment, Hepatic Encephalopathy

2.2- ANTIVIRALS

- | | | |
|----|------------------|---------------------------|
| 1. | Acyclovir | Tab 200 mg,
Inj 250 mg |
| 2. | Ribavirin | Cap 200 mg, 400 mg |
| 3. | Interferon alpha | Inj 3 MIU, 5 MIU |

2.3- ANTIFUNGALS

- | | | |
|----|----------|------------------------|
| 1. | Nystatin | Drops 100,000 i.u / ml |
|----|----------|------------------------|

2.4- ANTI-TUBERCULOSIS

- | | | |
|----|------------------------|--------------------------------------|
| 1. | Rifampicin+INH+ETM+PZA | Tab (120 mg+60 mg+225 mg+
300 mg) |
| 2. | Rifampicin+INH+ETM | Tab (150 mg+75 mg+300 mg) |

General Recommendations:

Hepatic & Renal function should be checked before treatment with anti-tuberculosis drugs and appropriate dosage adjustments made.

2.5- ANTI-MALARIALS

- | | | |
|----|---------------------------|--------------------|
| 1. | Sulfadoxine+Pyrimethamine | Tab (500 mg+25 mg) |
|----|---------------------------|--------------------|

Cautions: Avoid concurrent therapy with hepatotoxic drugs.

2.6- HYPOGLYCEMICS

- | | | |
|----|----------------------|-------------------------------|
| 1. | Glimipiride | Tab 1 mg , 2 mg , 3 mg , 4 mg |
| 2. | Gliclazide | MR Tab 30 mg, 80 mg |
| 3. | Glibenclamide | Tab 5 mg |
| 4. | Metformin | Tab 500 mg, 1g, MR tab |
| 5. | Proglitazone | Tab 15 mg, 30 mg, 45 mg |
| 6. | Rosiglitazone | Tab 2 mg,4 mg |
| 7. | Insulin R (Human) | Inj 100 i.u / ml |
| 8. | Insulin NPH (Human) | Inj 100 i.u / ml |

Cautions: Reduce dose of insulin incase of renal impairment

2.7- DIURETICS

- | | | |
|----|--------------------------|--------------------------------------|
| 1. | Frusemide | Tab 20 mg, 40 mg
Inj 20 mg / 2 ml |
| 2. | Spirolactone + Frusemide | Tab (50 mg + 40 mg) |

Cautions: Renal failure (Spirolactone + Frusemide)

2.8- ANTACIDS / H₂ BLOCKERS

- | | | |
|----|---|---------------------------------------|
| 1. | Aluminium hydroxide + Magnesium hydroxide + Simethicone | Suspension (215 mg + 80 mg + 25 mg) |
| 2. | Ranitidine | Tab 150 mg, 300 mg
Inj 50 mg |
| 3. | Famotidine | Tab 40 mg |
| 3. | Omeprazole | Cap 20 mg |

Cautions: Aluminium toxicity with prolonged administration of Aluminium hydroxide.

2.9- ANTI SPASMODIC

- | | | |
|----|----------------------------|---------------------------|
| 1. | Hyoscine -N- butyl bromide | Tab 10 mg, Inj 2 ml, 5 ml |
|----|----------------------------|---------------------------|

Cautions: Gastro-esophageal reflux disease, diarrhea, ulcerative colitis, myocardial infarction and pregnancy.

2.10- LAXATIVES

- | | | |
|----|---|--------------------------------------|
| 1. | Bisacodyl (Stimulant laxative) | Tab 5 mg |
| 2. | Lactulose (Osmotic laxative) | Syp 3.35 gm / 5 ml |
| 3. | Magnesium hydroxide + Liquid Paraffin (Laxative emulsion) | Emulsion 75 % v/v + 25% v/v (120 ml) |

2.11- ANTI DIARRHOEALS

- | | | |
|----|-------------|------------|
| 1. | Attapulgate | Tab 500 mg |
|----|-------------|------------|

2.12- ANTHELMINTICS

- | | | |
|----|-------------|------------|
| 1. | Mebendazole | Tab 100 mg |
|----|-------------|------------|

Cautions: Not suitable for women known to be pregnant or children under 2 years.

2.13- ANESTHETICS

- | | | |
|----|--------------------|-----------------------------|
| 1. | Thiopentone Sodium | Inj 500 mg |
| 2. | Propofol | Inj 200 mg/ 20 ml |
| 3. | Suxamethonium | Inj 100 mg / 2 ml |
| 4. | Lignocaine | Inj 2 % (10 ml), Spray 10 % |

Cautions:

Thiopentone sodium: Cardiovascular disorder and hepatic impairment.

Propofol: Convulsions and anaphylaxis. Delayed recovery from anesthesia can occur.

2.14- EMERGENCY MEDICINES

- | | | |
|-----|---------------------------------|--------------------------------|
| 1. | Atropine | Inj 1 mg (1 ml) |
| 2. | Adrenaline | Inj 1:1000, 1cc |
| 3. | Hydrocortisone sodium succinate | Inj 500 mg |
| 4. | Pheniramine maleate | Tab 25 mg, 50 mg
Inj 2 ml |
| 5. | Dopamine | Inj 200 mg |
| 6. | Dobutamine | Inj 250 mg |
| 7. | Isosorbide dinitrate | Tab 10 mg
Inj 10 mg / 10 ml |
| 8. | Heparin | 1000 i.u / ml (5 ml) |
| 9. | Dexamethasone | Tab 0.5 mg,
Inj 4 mg (1 ml) |
| 10. | Potassium Chloride | Tab 500 mg |

2.15- ANTI HYPERTENSIVES

- | | | |
|----|---------------------------------|-----------------------------------|
| 1. | Propranolol (Beta blocker) | Tab 10mg, 40 mg |
| 2. | Atenolol (-do-) | Tab 50 mg, 100 mg |
| 3. | Metoprolol (-do-) | Tab 100 mg, SR 200 mg
Inj 5 mg |
| 4. | Amlodipine (Ca channel blocker) | Tab 5 mg, 10 mg |
| 5. | Enalapril (ACE Inhibitor) | Tab 5 mg, 10 mg, 20 mg |
| 6. | Captopril (-do-) | Tab 25 mg, 50 mg |
| 7. | Methyldopa (Centrally acting) | Tab 500 mg |

Cautions:

Enalapril and Captopril : Pregnancy

Methyldopa is listed for use in management of pregnancy induced hypertension only.

2.16- HYPOLIPIDAEMICS

- | | | |
|----|--------------|------------------|
| 1. | Simvastatin | Tab 10 mg, 20 mg |
| 2. | Atorvastatin | Tab 10 mg, 20 mg |

2.17- LIPOTROPICS

- | | | |
|----|-----------|------------|
| 1. | Silymarin | Tab 200 mg |
|----|-----------|------------|

2.18- ANTITHROMBOTICS

- | | | |
|----|-------------|----------------------------|
| 1. | Clopidogrel | Tab 75 mg |
| 2. | Aspirin | Tab 75 mg (enteric coated) |

2.19- VITAMINS , MINERALS AND HAEMATONICS

- | | | |
|-----|--|--|
| 1. | Ferrous Sulphate + Folic acid | Tab (150 mg + 5 mg) |
| 2. | Ferrous Gluconate | Tab 250 mg |
| 3. | Iron Sucrose | Inj 20 mg / 5 ml |
| 4. | Folic Acid | Tab 5 mg |
| 5. | Multi vitamins | Tab |
| 6. | Pyridoxine (Vit B ₆) | Tab 50 mg |
| 7. | Mecobalamin (Vitamin B ₁₂) | Tab 500 mcg
Inj 500 mcg / ml |
| 8. | Vitamin C | Tab 500 mg |
| 9. | Vitamin B1 + B6 + B12 | Tab / Inj 3 ml
(100 mg + 100 mg + 1000 mcg) |
| 10. | Calcium supplement | Tab / Inj / Sachets |
| 11. | Calcium + Vitamin C | Tab |
| 12. | Nutrition supplement | Powder |

Cautions: Excess use of calcium can cause hypercalcemia.

2.20- DERMATOLOGICALS

- | | | |
|----|--|---|
| 1. | Clotrimazole | 1% Cream / Solution |
| 2. | Ketoconazole | 2% Cream |
| 3. | Benzyl benzoate | 25% Liquid |
| 4. | Permethrin | 1%, 5% w/w Lotion |
| 5. | Calamine | Lotion |
| 6. | Polymyxin B sulphate + Bacitracin zinc | 10,000 units + 500 units skin ointment / eye ointment |
| 7. | Betamethasone + Neomycin Cream | 0.1% + 0.5% Cream |
| 8. | Silver Sulphadiazine Cream | 1% Cream |

2.21- VACCINES & ANTISERA

- | | | |
|----|--------------------------|----------------------------|
| 1. | Anti Tetanus Serum (ATS) | Injection unit dose 0.5 ml |
| 2. | Hepatitis B Vaccine | Inj 20 mcg |

2.22- ANALGESICS

- | | | |
|----|----------------------|--|
| 1. | Diclofenic Sodium | Tab 50mg, SR Tab 100mg
Inj 75 mg (3 ml) |
| 2. | Flurbiprofen | Tab 100 mg |
| 3. | Naproxen | Tab 550 mg |
| 4. | Ibuprofen | Tab 200mg, 400mg
Susp 100 mg / 5 ml |
| 5. | Mefenamic acid | Tab 250 mg, 500 mg |
| 6. | Piroxicam | Cap 10mg, 20 mg |
| 7. | Paracetamol | Tab 500 mg |
| 8. | Acetylsalicylic acid | Tab 75mg, 300mg |
| 9. | Orphenadrine + PCM | Tab 35 mg + 450 mg |

Cautions: NSAID's associated ulcer (Avoid incase of gastro intestinal bleeding and peptic ulcer.), hepatic and renal impairment.

2.23- ANTI GOUT

- | | | |
|----|-------------|--------------------|
| 1. | Allopurinol | Tab 100 mg, 300 mg |
|----|-------------|--------------------|

Cautions: Allergic skin reaction.

2.24- ANTI HISTAMINES

- | | | |
|----|---------------------|--|
| 1. | Pheniramine maleate | Tab 25 mg, 50 mg
Inj 25 mg / ml |
| 2. | Cetirizine | Tab 10 mg |
| 3. | Promethazine Hcl | Tab 25 mg, Inj 50 mg / ml,
Elixir 5 mg / 5 ml |

2.25- ANTI-ASTHMATICS / BRONCHODILATORS

- | | | |
|----|--------------|---|
| 1. | Salbutamol | Tab 2 mg
Inj 0.5 mg / ml
Inhaler 100 mcg / puff (200 puffs) |
| 2. | Acefylline | Syp 125 mg / 5 ml |
| 3. | Montelukast | Tab 10 mg |
| 4. | Theophylline | Tab 350 mg |

2.26- COUGH SYRUPS

1. Ammonium chloride Syp 100 mg / 5 ml
2. Ammonium chloride + CPM + Dextromethorphan HBr Syp 90 mg + 4 mg + 10 mg / 5 ml
3. Aminophylline + Ammonium chloride + Diphenhydramine Syp 32 mg + 30 mg + 8 mg / 5 ml

2.27- EYE DROPS

1. Tropicamide 1 %, (15 ml) Drops
2. Chloramphenicol 0.5 % Drops
3. Tobramycin 0.3 %, (5 ml) Drops
4. Betamethasone 0.1 % Drops
5. Lodoxamide 0.1 % Drops
6. Dexamethazone + Chlorophenicol 0.1 % + 0.5 % Drops

2.28- HORMONES

1. Thyroxine Tab 50 mcg

SECTION 3

INTRA VENOUS FLUIDS

1. Fat emulsion preparation 20%.
2. Aminoacid preparations.
3. Mannitol Injection 10%, 20% w/v in water for injection
4. Dextrose water 5%, 10%, 25%, (1000ml)
5. Normal Saline 0.9% (1000ml)
6. Ringer lactate 1000ml
7. Polygeline 3.5 % (500ml)
8. Dextrose saline 4% in 0.18% (1000ml)

SECTION 4

CONTRAST MEDIAS

1. Meglumine Diatrizoate Solution 76 % (20 ml)
2. Iopamidol Inj 300 mg, 370 mg per ml

SECTION 5

DENTAL GELS AND PASTES

1. Choline salicylate + cetalkonium chloride Oral gel
2. Miconazole Oral gel 20 mg / gm
3. Chlorhexidine gluconate Oral gel 0.2 %
4. Protein free haemodialysis + polidocanol 5 % + 1% dental adhesive tooth paste
5. Stronsium chloride 10 % toothpaste
6. Tranexamic acid + sodium chloride Tooth paste
7. Potassium Nitrate 1 % w/w Mouth wash
8. Benzydamine hydrochloride + Chlorhexidine gluconate Mouth wash

SECTION 6

ANTISEPTICS AND DISINFECTANTS

1. Chloroxylenol 4.8 % Solution
2. Hydrogen peroxide Liquid
3. Methylated spirt Spirt
4. Povidone – Iodine Solution 10 % Aqueous Solution, Scrub
5. Chlorhexidine Solution 1.5 to 4 % w/v Solution

SECTION 7

SURGICAL ITEMS

1. Cotton Bandages 2 ½”
2. Cotton Crepe Bandages 4”
3. Gloves NO.6,5,7 and 7.5 “
4. Absorbent Cotton Roll 500gm.
5. Gauze Cloth.
6. Nelton Catheter NO.16
7. Condom Catheter.
8. Foley Catheter.
9. Micro Burette. (100ml)
10. Branulla G#20, 22.
11. Sterile medicated gauze for dressing.
12. Catgut No.3/0, 2/0 (Round Body Needle)
13. Silk No.3/0 with cutting needle.
14. Disposable Syringes 1cc,5cc,10cc
15. Surgical Blade No.23
16. Mask Caps. (Disposable)
17. Air Ways No.4,5

FORMULARY CHANGES

Any consultant who wishes to add a drug to the Hospital Formulary must submit a request form to the Pharmacy department. The request forms are available at Central Pharmacy.

The Pharmacy and Therapeutics Committee will take into consideration the following criteria when approving new drugs for the Hospital formulary.

- a) Availability of a substitute.
- b) Volume of the usage in the hospital.
- c) Cost effectiveness.
- d) Inventory consideration at Pharmacy.

Similarly psychiatrists can recommend addition or deletion of drugs from the Formulary with certain solid reasons. The committee will review and reprint the formulary once in two years.

APPLICATION FORM FOR THE ADDITION / DELETION OF A DRUG FROM THE HOSPITAL FORMULARY:

SECTION A: (to be filled by requesting Doctor)

- Name of drug _____
- Dosage form(s) and Strength _____
- Indication for Use _____
- Reasons for request in preference to existing drug _____

- Existing drug (s) to be deleted in favor of new drug _____

- Major side effects which have been reported to this new drug _____

- Estimated quantity required for 1 year _____
- Supporting literature _____

Signature of requesting Doctor

Department (Unit)

Name (in block letters)

Date

SECTION B: (to be filled by consultant of Unit)

I recommend / do not recommend the above application.

Signature

Name (in block letters)

Date

SECTION C: (To be filled by Pharmacy department)

1) Basic information:

- Name of drug: (Generic / Proprietary name) _____
- Dosage Forms & Strength: _____
- Name of Manufacturer: _____
- Unit Price: _____

2) Pharmaceutical classification & General Comments:

Section D: (Recommendation by P & T Committee)

(Please tick the appropriate box below)

Inclusion of Drug in Hospital Formulary

Deletion of Drug in Hospital Formulary

Recommended

Not – Recommended

Signature of Chairperson, Pharmacy & Therapeutics Committee

Date

MEDICATION ERROR REPORT

Patient's Particulars:

Name of patient: _____ S/O, D/O, W/O _____
 Age: _____ Sex: _____ Registration No: _____

Unit	Ward	Bed

Please tick (√) appropriate box(es) below

Type of Medication Error:

Wrong Medicine Administered

Prescription Error

Correct Medicine given but error of dosage, administration etc

Wrong Medicine(s) Administered:

Medicine Prescribed	Medication given	Error of Medication due to
_____	_____	Wrong dosage <input style="float: right;" type="checkbox"/>
_____	_____	Wrong dosing interval <input style="float: right;" type="checkbox"/>
_____	_____	Wrong route of administration <input style="float: right;" type="checkbox"/>
		Others (Please specify) _____

Medication administered by Doctor Nurse

Brief description of error including adverse effects if any

Correct Treatment Given YES NO

Status of Patient: _____
 Date and Time of error made: _____

Report submitted by:

Name & Signature of Medical Officer / Date _____
 Name & Signature of Consultant / Date _____

Notes for the Reporting Officer:

- 1- This report is to be completed in triplicate by the Medical Officer
- 2- The original is to be forwarded within 24 hours of error being discovered to Executive director through Secretary P&TC.
- 3- The duplicate is to be filed in the patient case file.
- 4- The triplicate is to be sent to Consultant for his/her information.