COMMUNITY PHARMACY INTERNSHIP PROGRAM

Association of Community Pharmacists of India
Manipal College of Pharmaceutical Science, Manipal

Report Prepared By

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(JUNE-JULY- 2010)

Acknowledgement

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Kanav Khera
Uday Venkat Mateti
Rama M

PRESCRIPTION

Prescription is an order written by the registered medical practitioner to a registered Pharmacist to prepare and dispense that medication order.

- ✓ The standard **prescription** should include the patient's name, age, sex, weight and any known drug allergy. It should include the diagnosis of the disease and a complete list of drugs
- ✓ Prescription including the dosage, frequency, instructions for use and duration.
- ✓ This **prescription** should also bear the signature and address of the prescriber

Some of the common abbreviations used during writing of the prescription:-

OD	Once daily
BD	Twice daily
TID	Thrice daily
QID	Four times daily
OC	Ointment
Tab	Tablet
Cap	Capsule
Inj	Injection

PRESCRIPTION HANDLING

The prescription handling is the first and the basic step involved in the community and the pharmacist

Should be very good in handling the prescription. The prescription handling involves the following steps:-

1. Receiving the prescription

2. Checking the prescription

3. Preparing the medication

4. Medication dispensing

Receiving the prescription

The prescription should not be received with astonishment or the shock on the face so that the patient should feel bad and makes him / her think that there is something wrong in the prescription or he /she is suffering from some serious disease.

Checking the prescription

The Prescription should be completely checked by the pharmacist after receiving it from the patient and before dispensing the drug. If there is any mistake in the prescription or overdose or any other problem, then pharmacist should refer the prescriber without any hesitation. The pharmacist should not allow to make any changes in the prescription without the order of the prescriber.

Preparing the medication

- ✓ The medication to be dispensed should be prepared by pharmacist should be done with lot of care.
- ✓ The pharmacist should use the correct weight and measures to dispense the drug
- ✓ The pharmacist should not prepare a medication with the guess or approximately.
- ✓ The pharmacist should not dispense the sub standard or adulterated or spurious drugs.
- ✓ The pharmacist should not also dispense the schedule G, H and X drugs without the prescription to anyone and should also not refill it without the prescription.

DRUG STORE MANAGEMENT

The drugs in the community, hospital and bulk pharmacy are stored and managed in the different ways. The different software's and techniques are used in the different pharmacies for the storage and management of the drugs like Hospital Gate, Clinic Gate etc.

- ✓ The drugs in community pharmacy are arranged in the order of the manufacturers name like Cipla, Biocon, etc.

- ✓ The drugs in hospital or bulk pharmacy are arranged in the alphabetical order with their category such as antihistaminic, antitussive, cardiac, diabetic, steroids etc
- ✓ The expired drugs are sent back to distributor or the stockiest one week before their expiry.

List of the some of the drugs with their category:-

CARDIAC	**ANTIBIOTICS**	**DIABETIC**
Amlodipine	Amoxicillin	Acarbose
Atenolol	Amikacin	Glibenclamide
Nifedipine	Ampicilin	Glipizide
Captopril	Azithramycin	Gliclazide
Carvedilol	Cefixime	Glimepride
Clonidine	Cefpodoxine	Insulin
Diltiazem	Ceftriaxone	Metaformin
Esinopril	Ciprofloxacin	Miglitol
Losartan	Erythromycin	Pioglitazone
Propranolol	Gentamycin	Rosiglitazona

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COMPUTER SKILLS

- ✓ The pharmacist should have the basic computer knowledge and should also have the enough knowledge about the use of the software.
- ✓ The computer are used for handling the prescriptions, maitainence of stock, billing, drug information web site search and for many more activities.
- ✓ There are number of software's which are being used. Eg: - Hospital Gate, Clinic Gate etc.
- ✓ These software's are used to maintaining the records in the pharmacy and for billing.
- ✓ The computer shows the data which has been entered and maintained continuously during the purchase, stocking and sale of the drugs.

- ✓ The different copies of the bills are being produce d by the computer.
  For eg :- In hospital pharmacy and the community pharmacy the three copies of bills are produced in which the one copy goes to the patient , one goes to the pharmacist who is dispensing the drugs and one goes to the cashier
- ✓ There are different software for the use of the drug information. For ex: - Micromedex, Micro Fish etc.
- ✓ These Software's gives the complete information about the drug.

REGULATORY ISSUES

The regulatory issues to start up the community pharmacy in every country vary from each other.

The minimum requirements to start a community pharmacy in India are as follows:-

- ✓ The license application form should be fully filled and submitted with the required documents and the respective fees at the licensing authority.
- ✓ The person should have diploma or degree in pharmaceutical sciences.
- ✓ Minimum area of about 1000 square feet.
- ✓ The refrigerator for the cold storage of drugs like vaccines, blood products.
- ✓ The qualified staff members
- ✓ The Vat or CST number from the local tax number.
- ✓ The registered pharmacist should be present during the inspection
- ✓ The inspection book should be maintained.
- ✓ The expiry register should be maintained.
- ✓ The drugs sold or purchased should be filed in separate files and records should be maintained.

ETHICAL ISSUES

The pharmacist should maintain the laws and rules related to his profession in the country.

The pharmacist should maintain the code of ethics like

- ✓ Name and address of the patient should be maintained

- ✓ The pharmacist should not sell schedule G, H and X drugs without the prescription of registered medical practitioner.
- ✓ The license of the pharmacy should be displayed at the prominent place so that it's visible.
- ✓ The prescriptions are to be preserved and the sold drugs should be filed.
- ✓ The Expiry register should be maintained.
- ✓ The pharmacist should not have the cut throat competition with his fellow pharmacist.
- ✓ The pharmacist should not sell the sub standard, adulterated or spurious drugs.
- ✓ The pharmacist should not do the hawking of the drugs.
- ✓ The pharmacist should tell the patient about the side effects of the self medication.
- ✓ The pharmacist should not give any advertisements in wrappers, news paper or journals about the efficacy of its pharmacy.
- ✓ The pharmacist should not do anything which hinders the profession of pharmacy.
- ✓ The Pharmacist should adapt the better regulation such as:-Good Manufacturing Practice(GMP), Good Laboratory Practice(GLP), Good Regulatory Practice (GRP)

PHARMACEUTICAL CARE

Pharmaceutical care is the direct interaction of the pharmacist with the patient for the purpose of caring the patient's medication-related needs. Translated into everyday practice, pharmaceutical care is what an individual pharmacist does when he or she

- ✓ Evaluates a patient's drug-related needs
- ✓ Determines whether the patient has any actual or potential drug-related problems,
- ✓ Works with the patient and other healthcare professionals to design, implement and monitor a pharmacotherapeutic plan that will resolve/prevent the problem

Effective collaborations among healthcare team: - pharmacist, patient and healthcare provider helps in the improving patient outcomes. This increased engagement in the medication use process requires pharmacists to undertake the assessment and evaluation of medication regimens, monitor regimens to ensure desired outcomes, counsel to ensure optimal use of medications, interact with healthcare providers and document care.

Principles of **Pharmaceutical care**

Pharmaceutical care is the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life. The outcomes of treatment are:

- ✓ Cure of disease
- ✓ Elimination or reduction of symptoms
- ✓ Arresting/slowing disease process
- ✓ Preventing a disease or symptoms.

TARGETS OF **PHARMACEUTICAL CARE**

- ✓ Disease state management
- ✓ Clinical interventions (refusal to dispense a drug, recommendation to change and/or add a drug to patient's pharmacotherapy, dosage adjustments, etc)
- ✓ Professional development
- ✓ Extemporaneous pharmaceutical compounding
- ✓ Health psychology
- ✓ Patient care
- ✓ Drug abuse prevention
- ✓ Prevention of drug interaction, including drug-drug interactions or drug-food interactions
- ✓ Prevention (or minimization) of adverse events
- ✓ Incompatibility
- ✓ Drug discovery and evaluation
- ✓ **Detect pharmacotherapy-related problems**, such as
- ➢ Patient is taking a drug which he/she does not need
- ➢ Patient is taking a drug for a specific disease, other than one affliction the patient
- ➢ Patient needs a drug for a specific disease, but is not receiving it
- ➢ Patient is taking a drug under dose
- ➢ Patient is taking drug overdose

- Patient is having an adverse effect to a specific drug
- Patient is suffering from a drug interaction

PATIENT COUNCELING ON HYPERTENSION

ABOUT THE DISEASE

Hypertension: The persistent elevation of blood pressure (BP) than the normal BP 120/80mmHg.

Classification of Blood Pressure in Adults

Classification	Systolic (mm Hg)	Diastolic (mm Hg)
Normal	<120	<80
Prehypertension	120–139	80–89
Stage 1 hypertension	140–159	90–99
Stage 2 hypertension	≥160	≥ 100

Symptoms of hypertension

Headache

Confusion

Nausea and vomiting

Drowsiness

Fatigue

Signs of hypertension

Signs of end-organ damage begin to appear, chiefly related to pathologic changes in the eye, brain, heart, kidneys, and peripheral blood vessels.

Causes of hypertension

Sedentary lifestyle

Stress

Obesity

Salt sensitivity

Alcohol in take

Vitamin D deficiency

Certain drugs like corticosteroids, estrogens, nonsteroidal anti-inflammatory drugs (NSAIDs) and amphetamines.

Risk factors

Stroke

Heart attack

Kidney failure

Pheochromocytoma

Cushing's syndrome

Hyperthyroidism

Hyperparathyroidism

About the Drugs

Tab Aten 25 mg 1-0-1 (Atenolol)

It is Blockers involve decreased cardiac output through negative chronotropic and inotropic effects on the heart and inhibition of renin release from the kidney.

U have to take this drug two times daily after beak fast and after dinner.

Side effects

Hypotension, dizziness, constipation, sexual dysfunction

Tab Amlodac 5mg 1-0-0 (Amlodipine)

It is a Calcium Channel Blockers cause relaxation of cardiac and smooth muscle by blocking voltage sensitive calcium channels, thereby reducing the entry of extracellular calcium into cells. Vascular smooth muscle relaxation leads to vasodilatation and a corresponding reduction in BP.

U have to take this drug two times daily after beak fast .

Side effects

Headache, dizziness , drowsiness , abdominal pain and back pain

Tab Shelcal 500 mg 0-1-0

It is a multivitamin u have to take this medicine in the afternoon after food.

LIFE STYLE MODIFICATIONS

(1) Weight reduction if overweight,

(2) Dietary sodium restriction ideally to 1.5 g/day (3.8 g/day sodium chloride),

(3) Regular aerobic physical activities like yoga, swimming and walking etc

(4) If you are having the habit of drink alcohol moderate alcohol consumption (two or fewer drinks per day),

(5) Reduce the stress

(6) Smoking cessation

PHARMACEUTICAL EDUCATIONAL MATERIAL FOR PATIENTS

The educational material for the patients is very useful as well as help for the patient so it should be in such a format that it should provide the useful information of drug in all respects best possible use of drug. The pamphlets and recently audiotapes and videos have become a usual, visible and promoted source of information for patients in general practice, in specialist consulting rooms, and in outpatient clinics.

BP MEASURINNG APPRATUS

U CAN CHECK YOU BP IN YOUR HOME WITH THE HELP OF THIS APPRATUS

THESE ARE THE CAUSE OF HYPERTENSION

DIETARY SODIUM RESTRICTION IDEALLY TO 1.5 G/DAY (3.8 G/DAY SODIUM CHLORIDE),

SMOKING CESSATION

STOP DRINKIG

IF YOU ARE HAVING THE HABIT OF DRINK ALCOHOL MODERATE ALCOHOL CONSUMPTION (TWO OR FEWER DRINKS PER DAY)

REGULAR AEROBIC PHYSICAL ACTIVITIES LIKE YOGA AND WALKING

REDUCE THE STRESS

HAVE AN HAELTHY DIET

Drawbacks in the existing system

- ✓ The profession is restricted only to the hospitals linked to a pharmacy practice school.
- ✓ Regulatory framework does not recognize the need for clinical pharmacist at the national level: There are no regulatory guidelines for having qualified clinical pharmacists in an Indian hospital
- ✓ Exodus of trained clinical pharmacists toward industry as there is almost no opportunity in the hospital setting: As there is no recognition of the job done by the clinical pharmacist at the regulatory level, the profession failed to create job opportunities in hospitals for qualified clinical pharmacy postgraduates.
- ✓ Students are forced to either seek jobs in industries (clinical research) or continue in academics at times teaching subjects which are out of scope of clinical pharmacy (as not many university hospitals have pharmacy practice school). The last option is to move to countries where the pharmacy profession is well recognized.
- ✓ The need for adding industry relevant topics in course curriculum - Dilemma of dilution Vs evolution:
- ✓ There is a widening gap between the numbers of students graduating from pharmacy practice institutions and the number actually employed as pharmacy practitioners. There is a need to take key steps to either create a niche for clinical pharmacy professionals in the hospital or make them competent to take up other challenging jobs in the industry.

REPORT

A total of 50 prescriptions were analyzed during the study period, among 50 prescriptions 18 females and 32 males and most of the patients were belonging to the age group of 45-56 years. It was found that four prescriptions had drug-drug interactions pair such as Aspirin and Warfarin, Ranitidine and Clopidogrel, Insulin and Aspirin and Amoxicillin and Warfarin. In three prescriptions strength is not mentioned tablet Metformin, tablet Amoxicillin and tablet Ramipril. In two prescriptions digoxin had prescribed it is narrow therapeutic drug so there is a need of checking the levels of the drug in the blood, otherwise it will causes serious adverse drug reactions.

Hence there is an need of community pharmacist to improve the better patient care and safe use of drugs