UNIVERSITY OF ILORIN, ILORIN, NIGERIA

FACULTY OF PHARMACEUTICAL SCIENCES

DEPARTMENT OF CLINICAL PHARMACY AND PHARMACY PRACTICE

500 LEVEL Pharm D ETHICAL DISPENSING PRACTICALS

PCP 513 GUIDELINE

ETHICAL DISPENSING PRACTICALS (PCP 513) GUIDELINE

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INTRODUCTION

Ethical dispensing of drugs and medicinal products is an integral part of rational drug therapy. The drug must be prescribed, dispensed and used rationally. This course is taken in the final year of the pharmacy undergraduate training to prepare the students professionally for what to expect and to do on graduation as it relates to patients and use of prescribed drugs and medicinal products. The work of a pharmacist in a dispensary requires care and attention to detail. Only by working in a tidy and organized fashion can this be achieved. Sloppy, unhygienic and untidy work will not be tolerated in the dispensary or in professional practice. Preparations should be dispensed as if for use by patients.

A pharmacist assumes total responsibility for what he/she dispenses. It is essential you develop confidence in your own ability.

As students you will be working in a professional environment, the dispensing lab, and you should start to think of yourselves as professionals and dress appropriately.

It is hoped that by now you have covered courses in production, storage, pharmacokinetics, structure and activity of drugs, drugs interactions, side effects, pharmacy laws and ethics etc. Your experience during SIWES should also assist you in ethical dispensing.

APPEARANCE

Your appearance has a lot to do with the acceptability of your products by the patient. A bad dress is a bad publicity of your product just as an elegant dress is a publicity of your product. You are to be modestly dressed and appear to be good and responsible. Men should wear tie. All students are to wear neat and well-laundered white laboratory coats appropriate for their size.

WORK PLACE

The neatness of the work environment is important and you must ensure that your work bench is neat to instill confidence in your patients.

- For the purpose of class work, marks shall be deducted from you for dirty work environment to compensate for impression and opinion of the patient in real practice.

- Plan your work area. Your work area must be kept clean, tidy and uncluttered whilst working.
- Use appropriate standards of hygiene during all stages of dispensing. Do not lick labels, suck pencils etc.
- Do not sit on the benches. It is forbidden to eat, drink, smoke, chew gum etc. in the dispensing area.
- Mobile phones are not allowed in the dispensing area – they must be turned off before commencing work or they will be confiscated.
- Report all spillages, breakages and accidents.
- Counting triangles and trays must be kept clean. Benches, spatulas, etc., must be cleaned immediately after each product is completed, do not wait until the end of the session before cleaning equipment.
- Replace the lids on containers after use and ensure they are firmly closed. Make sure the outsides of containers are clean. Return all containers, reference books etc. to their proper places immediately after use.
- If materials or equipment appear to be in short supply, please check with a tutor or laboratory technician.
- At the end of each dispensing session, ensure that your equipment, bench, cupboard, shelves are clean and tidy. All medicines, equipment, books etc. are in their correct places.

WORKING TOOLS

The pharmacist and other health practitioners may not have all the information's about medicinal products at their fingertips; you may need the assistance of cross-reference materials. Currently, both hard and soft copies of BNF, EMDEX, Martindale, Pharmacopoeia and MIMS are few but not exhaustive examples of such materials that may assist you in deciding the appropriateness of drug, dosage duration, route, dosage form, storage conditions, etc. You are also expected to come

in with a functional red, blue, black, red pen for labeling; ruler, gum and hand towel. Other mobile reference materials include Micromedex, Lexicomp and Eppocrates

ACTIVITIES

1. Your job in the dispensing class is to evaluate prescriptions and access patient profile.
2. Prescription contents are interpreted and validated in terms of appropriateness for individual patient.
3. Inform the patient/ caregiver of the benefits of substitution for a branded or generic medicine by an interchangeable multi-source medicine (when applicable).
4. The prescription modifications and anomalies are addressed through communication with the attending lecturer.
5. Dispense the prescription as it is if there is no problem(s).
6. Prepare the prescription as per good dispensing practice.
7. Professional records are maintained as per legislative requirements and according to good pharmacy practice guidelines.
8. Poisons particularly MUST be recorded in the poison book.
9. Medicines are prepared or packaged in a professional and ethical manner. This also means that you are to appropriately label the product with relevant information for the patient/ caregiver/ representative on your dispensing practical note books.
10. Appropriate advice/ instructions is/ are to be provided to the patient/ caregiver regarding safe and efficacious use of medicines dispensed.
11. Provision of addition, relevant, related information to the patient/ caregiver should be done.

PRESCRIPTION SHEET/ FORM

This is a paper in which the order to dispense is given to the pharmacist by the prescriber. The form or sheet may vary from institution to institution but has this general information:

- The name and address of the health facility.
- Provision for the name, sex, age, weight and address of patient.
- A Rx

- ❖ A blank space below the Rx for filling of the prescription appropriate to the individual patient.
- ❖ Provision for the name, hospital code or signature of the prescriber.
- ❖ Date for the day the prescription was written.

A complete prescription is the one that has the information above and includes these additional information from physician to the pharmacist:

a. The name of the drug
b. The dosage form of the drug
c. Dose of the drug
d. The strength of the drug
e. The frequency of dosing
f. The duration of therapy

DOSE AND DOSAGE

Dose: The amount of medicine to be taken or given, at one time.

Dosage: The amount of medicine to be taken, or given, in a period of time.

Calculation of the dose is dependent on many factors, e.g. age of the patient, severity of the disease, route of administration, concomitant drug therapy, and any underlying disease states. The BNF, EMDEX, pharmacopoeias (both hard copies and soft copies), Lexicomp Online et cetera are the main source of dose information and generally give the dose ranges within which agents are generally therapeutically useful for the average patient. The dose may have to be modified according to the factors mentioned above.

For some substances a period is stated over which the whole dose is given, e.g. “daily in divided doses”, the division being left to the prescriber. It must not be assumed that the dose indicates the greatest amount of drugs that may be given. The medical practitioner will exercise their own judgment and act on their own responsibility in respect of the amount of any therapeutic agent they may prescribe or administer, or the frequency of its administration.

When, however, an unusually large dose appears to have been prescribed, it is the responsibility of the pharmacist to satisfy himself that the prescriber’s intention has been correctly interpreted.

For large numbers of drugs and preparations the BP provides at the end of the monograph a statement of "Actions and Uses" and (if applicable) "Usual Dose"
A typical example is:
Aspirin
Actions and uses - analgesic antipyretic
Usual Dose Range - 0.3 g to 1g; up to 4g daily, in divided doses. In the treatment of acute rheumatism 4g to 8g daily, in divided doses.

The Pharmacopoeia attitude to dose is very formal. A better appreciation of practical dosage schedules can often be obtained from APF, BNF, Martindale or the Pharmaceutical Codex. Manufacturers' literature and compendia such as the New Ethicals Compendium provide also useful sources of information about dosage.

LABELLING REQUIREMENTS

No patient should leave the pharmacy without knowing how to use the medicine, how much and how often. At all times the written instructions should be primarily regarded as back-up to the pharmacist's oral counseling.
When producing a label, you should ensure that the information on the label is:

1. In a language appropriate to the patient's needs. (KEEP IT SIMPLE)
2. Indelible and legible. (KEEP IT CLEAR)
3. Of the size and type of lettering appropriate to the patient's needs.
4. In a uniform color contrasting strongly with a uniform background. Directions such as "Not to be taken" and "For External Use Only" may be in RED lettering.
5. Not in the address panel or any other place where it could obstruct or be hidden by other information.
6. Is placed on the label in lines parallel to the base of the container.
7. Is placed on the primary container – this is the container that the patient will be using not the box that they will throw away.

8. Free of errors and overtypes. (KEEP IT CLEAN)
9. Free of unnecessary decoration and embellishment. (KEEP IT PLAIN)

Record quantity dispensed on label as this is a requirement for:

1. All solid dose preparations.
2. All liquid preparations when the quantity specified does not fill the bottle.

It is however, strongly recommended that the quantity be stated on each preparation. The name or description of the nature of the contents. This is legally required and should give the name or the official abbreviation of the name of the medicine as stated in the prescription, unless:

1. The contents are extemporaneously prepared and contain more than a single active ingredient.
2. If a preparation comes in more than one strength, the label should give the strength supplied (it is preferred that the strength is always stated on the label).
3. Extemporaneously compounded preparations containing more than one active ingredient do not need to be labeled with a precise name. If the prescription calls for an official preparation e.g. BNF, BPC, BP, APF – use their short title on the label to identify them – e.g. Potassium Citrate Mixture APF.

Directions for use

It is legally required to give:

1. Dose, and frequency of dose (Internal preparations)

   Please note that you need to word the directions according to the formulation of the product.

   For example:

   'Take one tablet'

   'Dissolve the contents of one sachet in water and..'

   'Insert the contents of on applicator full..'

2. Method and frequency of use/application (external preparations)

3. Special individual directions as per the prescription form.

Please note that the directions on the label should exactly reflect the prescription. There is no need for additional information (e.g. take for pain relief) unless it is specified in references such as C& A labels from the Dispensing Guide.

Some useful things to note when preparing labels for medicines:

A prescription with non-specific directions, such as "use as directed" (mdu) or when required (p r n), the pharmacists must ensure the patient understands the directions clearly and correctly, and where necessary provides written guidance.

The nature of the contents may be such that ancillary labeling is required. Think of what the additional label is saying and position it to do its job – e.g. if the preparation is to be shaken before pouring the dose, put "Shake the bottle" above the main label. If ancillary labels need to be attached, place them horizontally, and avoid placing them on the main label or obscuring any writing on the label. If you choose to put some of these on the medicine label using the computer, make sure that the font is large enough to be read clearly by the patient.

Keep the wording simple and specific:

Example:

"Take" rather than "to be taken"

"Do not swallow" rather than "Not to be taken"

"Spread thinly" rather than "Use sparingly"

"Put TWO drops into" rather than "Instil TWO drops"

Try to avoid having the number to be taken and the times of taking adjacent:

Example:

"Take TWO tablets FOUR times a day" rather than "Take TWO 4 times a day"

"Take TWO tablets TWICE a day" rather than "Take TWO TWICE a day"

Fractions should be expressed in words rather than in figures.

Example:

TWO AND A HALF ML rather than 2.5 mL or both words and figures i.e. TWO and a HALF ml (2.5ml)

Distinguish between different drug delivery forms:
Example:
"Swallow whole" Sustained release preparations
"Dissolve under the tongue" Sublingual tablets
"Chew" Chewable tablets
"Give" is preferred when the dose is prescribed for a young child or an animal
Example:
"Give ONE 5mL spoonful THREE times a day."

Measures: Only metric measures may be used, imperial must not be used.
1. weights:
g is the official abbreviation for gram, mg is the official abbreviation for milligram, mcg is preferred to ug microgram.
2. volume:
ml or mL preferred abbreviation for milliliter, L preferred abbreviation for litre.

Date of dispensing:
The date of dispensing is a legal requirement and required the format is 21 Feb 01 rather than 21/02/01, to avoid confusion with reference numbers.

Place the label so that it is:
1. Easy to read, with no blemishes.
2. Firmly fixed to the container (which is clean).
3. Straight and visually balanced.
4. Not likely to be damaged, defaced or removed when the container is opened.
5. Not obscured by another label, folder, pamphlet etc.

6. On both the inner and outer container if both are being supplied (always label the primary container).

CONTAINERS FOR DISPENSED MEDICATIONS

The aim should be to make a clear distinction between preparations that may be taken internally and those intended for external use. The container should also be selected which will best protect the life of the preparation.

Preparation Container

Mixtures	Plain, amber, glass or plastic, medicine bottle
Emulsions	(Internal) Plain, amber, glass or plastic medicine bottle with wide neck if available
Elixirs	Plain, amber, glass or plastic medicine bottle
Linctuses	Plain, amber, glass or plastic medicine bottle
Tablets and capsules	Plain, amber glass or plastic tablet bottle
Powders	Individually wrapped in powder papers and dispensed in a cardboard box.

Substances for topical application

Preparation Container

Eye drops, ear drops, nasal drops Dropper bottle

Mouthwashes and gargles Clear ribbed bottle, glass or plastic, or, amber if contents sensitive to light

Enemas Ribbed poison bottle, amber, glass or plastic,

Lotions, liniments and antiseptics Ribbed poison bottle, amber or clear, glass or plastic

Creams, ointments, pastes and gels Ointment jars or tubes

Suppositories and pessaries

Individually wrapped in foil or plastic and dispensed in a cardboard box.

ABBREVIATIONS USED IN PRESCRIPTION WRITING

ac	before meals / before food
alt die	alternate days / every other day
bid/ bd	TWICE a day
BE	BOTH eyes
Cc	Close control
EE	EACH eye
Gutt	drop
nocte	or at night
mane	in the morning
mitte	send/supply
o	each
d/die	daily
od	Once daily
on	at night
po	by mouth
pc	after meals / after food
prn	as needed / when necessary / if required / when required
q3h/q4h every	THREE hours/every FOUR hours
qqh	every FOUR hours (or " up to every FOUR hours") –
qid/ qds/qd	FOUR times a day -
qs	Quantity sufficient
tid/tds	THREE times a day
cc	with meals / with food
sos	when necessary / if necessary
mdu	as instructed / as directed
caps	capsules
tabs	tablets
mixt	mixture
linct	linctus
ung	ointment

gutt	drops
sig	follow these instructions
Stat/st	immediately (often implies a single dose, though not always)
hss	At bedtime (literally at the hour of bedtime)

"Fractions" are sometimes used to express frequency or duration of treatment.

Example:

1/52 - one week

1/7 - one day

1/12 - one month

Clarification with the prescriber is required if ambiguous.

The abbreviation q.h. is also understood by some to stand for "quaque hora" or every hour. Care is required in the interpretation of this abbreviation. Always check with prescriber.

Letters on prescription

Y = child under 6 year old. No co-payment

J = 6-17 year old (18 year old only if at school. If they are younger than 18 and have left school they are considered to be an adult)

A = adult

MARKING OF CLASSWORK

During this course, marks would be allocated to the following sub headings of your work:

a. General screening of the prescription. That is your ability to authenticate the prescription in relation to the prescriber and the patient.
b. Drug screening- ability to screen the drug in the light of dosage form, strength, duration, dosage, frequency, interaction etc.
c. Calculations based on what you deemed to be the correct and appropriate prescription for the patient.
d. Labeling and instructions on the dispensed product.
e. Advice and counseling the patient.

CALCULATING INFUSION RATE

We calculate infusion rate using Dimensional Analysis

Example:

Rx

IVF Ceftriaxone 1g in 500ml 0.9% N/S over 30 minutes 12 hourly x 48hrs

Drip factor- 20gtt/ml (gtt = drops/ml)

IVF ceftriaxone 1g is dissolved in 5ml of sterile water for injection giving a clear yellow solution (turbid solutions should be discarded and fresh ceftriaxone should be prepared), after which it will be mixed in the 500ml of N/S and given via Intravenous infusion over 30 minutes. The 5ml of dissolved ceftriaxone is not significant to alter the 500ml of N/S. To calculate the drip rate in gtt/min we use dimensional analysis

500ml/30 minutes x 20gtt/ml (ml will cancel leaving gtt/minutes)

$$\frac{500\text{ ml N/S}}{30\text{ minutes}} \times \frac{20\text{ gtt}}{\text{ml}} = 333\text{ gtt/min (gtt = drops/minutes)}$$

Rx
IVF gentamycin 160mg in 500ml of 0.9% N/S over 1 hour 12 hourly x 48hrs
Drip factor- 15gtt/ml

160mg will be mixed in 500ml of 0.9% N/S and given via Intravenous infusion over 1 hour. The 4ml of dissolved gentamycin is not significant to alter the 500ml of N/S. To calculate the drip rate in gtt/min we use dimensional analysis.

For every 1 hr we have 60 minutes, we have to convert the hours to minutes

$$\frac{500\text{ml N/S}}{1\text{hr}} \times \frac{1\text{hr}}{60\text{ minutes}} \times \frac{15\text{gtt}}{\text{ml}} = 125\text{gtt/min}$$

The hr and ml will cancel each other out leaving gtt/min

Rx

Heparin drip at 7 mcg/kg/minute for a patient weighing 79kg. What should the drip rate (gtt/min) be if the 250 mL infusion bag contains 300 mg of heparin and the administration set delivers 50 drops/mL?

7 mcg/kg/min for 79kg patient = 553mcg/min = 0.55mg/min

If 0.55mg/min then 300mg/min heparin = 545 min

Convert 545min to hrs = 9hrs

Convert hrs to min

The hr and ml will cancel each other out leaving gtt/min

$$\frac{250\text{ml heparin infusion}}{9\text{hrs}} \times \frac{1\text{hr}}{60\text{min}} \times \frac{50\text{gtt}}{\text{ml}} = 23\text{gtt/min}$$

Rx

Dobutamine is packaged as 2 g in 250 milliliters of D5W. A 63kg patient is to receive a dose of 10 micrograms per kg per minute, how many mL/h should be administered?

10mcg/kg/min for a 63kg patient = 630mcg/min

If 0.63mg/min then 2000g dobutamine = 3174min

$$\frac{250\text{ml D5W}}{3174\text{min}} \times \frac{60\text{min}}{1\text{hr}} = 4.7\text{ml/hr}$$

INFUSION INCOMPATIBILITY

Errors in the administration of IV drugs are numerous, with IV drug incompatibility being a significant problem**.** Drug incompatibility results from the simultaneous dilution and/or administration of two or more drugs that interfere with the therapeutic efficacy of the medications and patient safety, visually evidenced by change of solution color, precipitation, or turbidity. The Intensive Care Unit (ICU) presents substantial patient safety challenges. In ICU, intravenous (IV) therapy is preferred over oral therapy. It is complex and error-prone hence requiring strategies to reduce the risk and complications. Infusion therapy is associated with a high risk of causing harm for patients. The administration of IV medications may be associated with undesirable effects, especially when administered in error. Physical reactions of drugs usually refer to either phase separation or precipitation due to a shift in the relation between ionization and non-ionization and solubility. In chemical incompatibility, the medicine may undergo many chemical degradation pathways such as oxidation, reduction, hydrolysis, photolysis, or racemization. It can be perceived as turbidity, precipitation, and color changes. Therapeutic incompatibility may occur when two or more drugs are administered concurrently resulting in undesirable antagonistic or synergistic pharmacological activity.

These incompatibilities generally occurs between drugs and inappropriate diluents, two drugs: drug-drug incompatibility, when these are mixed in the same infusion line or the same IV container when these are administered one after the other within the same infusion line, drugs and adjutants such as stabilizer and solvent and drugs and materials of IV containers like polyvinyl chloride. Probable mechanisms for these incompatibilities may be due to medicines that precipitate on dilution, precipitation of medications due to pH change on mixing, ionic reactions forming insoluble substances, and denaturation of biological molecules. The extent and severity of the damage caused by incompatibility depend on the patient's condition and the type of drug administered. Significant consequences are multi-organ failure, severe liver dysfunction, toxic shock, local embolus, myocarditis, respiratory difficulties, systemic allergic reactions, local allergic reactions, thrombosis, thrombophlebitis, phlebitis, and local redness.

Recent studies showed or recommended the following preventive strategies for preventing the IV drug incompatibilities as helpful: the usage of multiple lumen catheter, use of in-line infusion filters, separate IV infusion by time and place, flushing the IV line with a fluid compatible to the drug administered, and the color-coding system for drug pH.

Drug-Drug compatibility chart	Acetaminophen	Acycovir	Amikacin	Ca gluconate	Ceftriaxone	Clindamycin	Dexamethasone	Fentanyl	Fluconazole	Furosemide
Acetaminophen	-	I			C	C	C	C		
Acyclovir	C	-	C	C	C	C	C	C	C	C
Amikacin	C	C	-	C	C	C	C	C	C	C
Calcium Gluconate		C	C	-	I	C	CV	C	CV	C
Ceftriaxone	C	C	C	I	-	I	C	C	CV	C
Clindamycin	C	C	C	C	I	-	C	C	CV	C
Dexamethasone	C	C	C	CV	C	C	-	C	C	C
Fentanyl	C	C	C	C	C	C	C	-	C	C
Fluconazole		C	C	CV	CV	CV	C	C	-	CV
Furosemide		C	C	C	C	C	C	C	CV	-
Glycopyrrolate		C	C	C	C	C	C	C	C	I
Ketorolac	C	I	C	CV	C	C	C	C	C	C
Levofloxacin		I	C	C	C	C	C	C	C	I
Meropenem		CV		CV			C		C	C
Metronidazole	I	I	C	C	C	C	C	C	C	C
Midazolam	C	I	C	C	C	CV	I	C	C	CV
Ondansetron	C	I	C	C	CV	C	C	C	C	I
Pantoprazole		CV	CV	CV	C	CV	I	I	I	CV
Piper/tazo	C	I	C	C		C	C	C	C	C
Thiamine			C	C	C	C	C	C		I

Drug-Drug compatibility chart	Glycopyrrolate	Ketorolac	Levofloxacin	Meropenem	Metronidazole	Midazolam	Ondansetron	Pantoprazole	Piper/Tazo	Thiamine
Acetaminophen		C			I	C	C		C	
Acyclovir	C	I	I	CV	C	I	I	CV	I	
Amikacin	C	C	C		C	C	C	CV	C	C
Calcium Gluconate	C	CV	C	CV	C	C	C	CV	C	C
Ceftriaxone	C	C	C		C	C	CV	C		C
Clindamycin	C	C	C		C	CV	C	CV	C	C
Dexamethasone	C	C	C	C	C	I	C	I	C	C
Fentanyl	C	C	C		C	C	C	I	C	C
Fluconazole	C	C	C	C	C	C	C	I	C	
Furosemide	I	C	I	C	C	CV	I	CV	C	I
Glycopyrrolate	-	C			C	C	C	I	I	C
Ketorolac	C	-	I		C	I	C	I	C	
Levofloxacin		I	-		C	C	C	I	I	
Meropenem				-	C		CV	I		
Metronidazole	C	C	C	C	-	C	C	I	C	
Midazolam	C	I	C		C	-	C	CV	I	
Ondansetron	C	C	C	CV	C	C	-	I	C	
Pantoprazole	I	I	I	I	I	CV	I	-	CV	
Piper/tazo	I	C	I		C	I	C	CV	-	
Thiamine	C									-

NT=Not tested, CV=Caution variable, C=Compatible, I=Incompatible

EXAMPLE

Kausar Hospital

Ibrahim Ismail, Ad
Addressed
44yo, 60kg

Diagnosis: HTN, DM
BP- 170/90mmHg, FBS- 218mg/dl

Rx
Tab Lisiofil 10mg tds x 1/52
Tab Metformin 500mg o.d x 1/52
Tab Amlong 10mg x 2/52

Dr Lalaong, F.K

GENERAL COMMENT

1. The hospital has no address
2. No date on the prescription
3. The prescriber has no MBBS

PRESCRIPTION COMMENT

1. Lisiofil is a brand name, generic name Lisinopril should use
2. Amlong is a brand name, generic name Amlodipine should be used
3. The frequency of Lisinopril is too much, it should be once daily
4. The frequency of Amlodipine is not indicated
5. The frequency of metformin is too low, it should be increased to t.d.s due to the high sugar level

Corrected prescription:
Rx
Tab Lisinopril 10mg daily 1/52
Tab metformin 500mg tds 1/52
Tab Amlodipine 10mg daily 2/52

CALCULATION

Tab Lisinopril 10mg x 1 x 7 = 7 tablets
Tab metformin 500mg x 3 x 7 = 21 tablets
Tab Amlodipine 10mg x 1 x 14= 14 tablets

METHOD:

The prescription contained drugs written in their trade name it was changed to their generic name.
According the BNF Lisinopril should be taken once daily
Amlodipine frequency was not stated, from the BNF Amlodipine should be taken once daily
Due to the high blood sugar level it was advised that the frequency of metformin should be increase to three times daily
The above correction for the prescription was ENDORSED by the attending lecturer after which the corrected prescription will be labeled and dispensed.

LABEL: :BLUE

Ibrahim Ismail Addressed	kausar Hospital Addressed

Tab Lisinopril 10mg

QTY: 7tablets

Take one tablet by mouth once daily for seven days

MATRIC NO Dr Lalaong, F.K

Dept of Clin Pharm & Pharm Pract.

LABEL: :BLUE

Ibrahim Ismail, Addressed	Kausar Hospital Addressed

Tab Metformin 500mg

QTY: 21 tablets

Take one tablet every eight hours for one week

(MAY CAUSE GIT DISTURBANCE)

Matric No	Dr Lalaong, F.K

Dept of Clin Pharm & Pharm Pract

LABEL:BLUE

Ibrahim Ismail, Addressed	Kausar Hospital Addressed

Tab Amlodipine 10mg

QTY: 14 Tablets

Take <1> tablet by mouth once daily for one week

KEEP OUT OF REACH OF CHILDREN

MATRIC No	Dr Lalaong, F.K

UPDATED LABELLING

Hanifah Hospital DATE:
Addressed

Dr Lalong F.K

Rx No:

NAME OF PATIENT:

DIRECTIONS:

QTY:

IMPORTANT INFORMATION

May cause cough, dizziness, excessive tiredness, nausea, diarrhea, runny nose, decrease in sexual ability, rash

ADVICE: GIVE ADVICE FOR INDIVIDUAL PRESCRIPTION

LISINOPRIL

1. May cause cough, dizziness, excessive tiredness, nausea, diarrhea, runny nose, decrease in sexual ability, rash
2. Some side effects can be VERY SERIOUS, if you experience any of these symptoms, call your doctor immediately: swelling of the face, throat, tongue, lips, eyes, feet, hand, ankle or lower legs
3. Difficulty breathing or swallowing
4. Fever, sore throat, chills or any sign of infection

AMLODIPINE

1. Fluid retention on your feet (oedema)
2. Headache, dizziness, palpitation, sleepiness (especially at the beginning of treatment)
3. Abdominal pain, nausea, diarrhea, constipation
4. Visual disturbance

Visit your doctor IMMEDIATELY if you experience ANY of the following side effects:

1. Sudden wheeziness, chest pain, shortness of breath
2. Swelling of the eyelid, face or lip
3. Severe skin reaction including intense rash, sever itching or other allergic reaction

METFORMIN:

1. Take metformin with food to reduce GIT disturbance
2. Most common GIT side effects of metformin are diarrhoea, heartburn, indigestion, bloating, stomach pain and unpleasant metallic taste in the mouth

Visit your doctor IMMEDIATELY if you experience ANY of the following side effects:

1. Chest pain, difficulty breathing, skin rash