PHARMACOTHERAPEUTICS PRACTICALS

PHARMACEUTICAL CARE PLAN PWDT AND FARM NOTES

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Systematic Approach to Care Planning
Pharmacist's Workup of Drug Therapy (PWDT)

- The provision of pharmaceutical care is often centered around process described as the PWDT.

- Although the forms or methods used for this process may vary, the components are essentially the same.

Pharmacist's Workup of Drug Therapy (PWDT)

1. Data collection:

Collect, synthesize, and interpret relevant information such as:

(a) Patient demographic data: age, sex, and race.

(b) Pertinent medical information

- Current and past medical history
- Family history
- Social history
- Dietary history
- Medication history (prescription , OTC, social drugs and allergies)
- Physical findings (e.g., weight, height, blood pressure, edema)
- Laboratory or other test results (e.g., serum drug levels, potassium level, serum creatinine as relevant to drug therapy)

(c)Patient complaints, symptoms, signs.

Pharmacist's Workup of Drug Therapy (PWDT)

2. Develop or identify the **CORE Pharmacotherapy Plan**

C – Condition or patient need

O – Outcomes desired for that condition

R – Regimen selected (prescribed) to achieve that outcome

E – Evaluation parameters to assess outcome achievement

3. Identify the **PRIME pharmacotherapy problems** or indications for pharmacist interventions. The goal is to identify actual or potential problems that could compromise the desired patient outcomes.

P – Pharmaceutical – based problems

R - Risks to patient

I – Interactions

M – Mismatch between medication and condition or patient needs.

E – Efficacy issues

Pharmacist's Workup of Drug Therapy (PWDT)
PRIME- pharmacotherapy problem types

Pharmaceutical	Assess for incorrect Dose, Route, Duration, Form, Frequency, timing
Risks to Patient	Assess for • known contraindication • patient medication allergy • drug-induced problem • improper utilization (i.e., risk is misused) • common/serious adverse effects • medication error considerations
Interactions	Assess for drug-drug; drug-food; drug-disease/ condition
Mismatch between medication and indications/ conditions/ complaints	Assess for • medication used without indication • indication, condition, or complaint untreated
Efficacy issues	Assess for • **suboptimal selection** of pharmacotherapy for indication • minimal or no **evidence** of therapeutic effectiveness • **suboptimal utilization** of pharmacotherapy (taking or receiving medications incorrectly) • patient preference consideration (e.g., undesirable prior experiences with medication , does not believe works) • medication availability considerations • compliance or administration considerations (e.g., inability to pay, unable to administer correctly or at all)

Pharmacist's Workup of Drug Therapy (PWDT)
FARM Note

4. Formulate a FARM progress note to describe and document the interventions intended or provided by the pharmacist.

F – Findings:

The patient –specific information that gives a basis for, or leads to, the recognition of a pharmacotherapy problem or indication for pharmacist intervention.

A – Assessment:

The pharmacist's evaluation of the findings, including a statement of:

- Any additional information that is needed to best assess the problem in order to make recommendations.
- The severity, priority, or urgency of the problem.
- The short-term and long-term goals of the intervention proposed or provided

Pharmacist's Workup of Drug Therapy (PWDT)
FARM Note

Examples of short-term goals include:

- eliminate symptoms,
- lower blood pressure (BP) to 140/90 within 6 weeks,
- manage acute asthma flare up without requiring hospitalization.

Examples of long-term goals include:

- prevent recurrence,
- maintain BP at less than 135/80,
- prevent progression of diabetic nerve disease.

Pharmacist's Workup of Drug Therapy (PWDT)
FARM Note

R- Resolution (including prevention):

The intervention plan includes actual or proposed actions by pharmacist or recommendation to other health care professionals. The rationale for choosing a specific intervention should be stated.

Intervention options may include:

- Observation, reassessing, or following

  If no action was taken or recommended, the FARM note serves as a record of the event
- Counseling or educating the patient or care giver
- Making recommendations to the prescriber
- Informing the prescriber
- Withholding medication or advising against use

Pharmacist's Workup of Drug Therapy (PWDT)
FARM Note

M – Monitoring and follow-up:

The parameters and timing of follow-up monitoring to assess the efficacy, safety, and outcome of the intervention. This portion of the FARM note should include:

- The parameter to be followed (e.g., pain, depressed mood, serum potassium level)
- The intent of the monitoring (e.g., efficacy, toxicity, adverse event)
- How the parameter will be monitored (e.g, interview patient, serum drug level, physical examination)

Pharmacist's Workup of Drug Therapy (PWDT)
FARM Note

- Frequency of monitoring (e.g, weekly, monthly)
- Duration of monitoring (e.g, until resolved, while on antibiotic, until resolved then monthly for one year)
- Anticipated or desired finding (e.g, no pain, euglycemia, healing of lesion)
- Decision point to alter therapy if outcome is not achieved (e.g., pain still present after 3 days, mild hypoglycemia more than 2 times a week)

Patient-Oriented Type of Care Plan

The pharmaceutical care plan (modern) is also designed based on the activities of care plan i.e.,

1. Determining Desired Goals of Therapy
2. Making Interventions
3. Scheduling Follow-up and Evaluation

The following is an example of care plan of a patient who had a history of Hypertension (treated with Atenolol) and was diagnosed with Dyslipidemia.

Pharmacist's Care Plan

Name of the Patient: Mrs. Naila Name of the Pharmacist: NK

Medical Condition(s): Dyslipidemia; hypertension

Patient Assessment
Clinical Findings: Weight: Overweight (BMI) 29.1 kg/m^2 BP: 140/90 mm Hg
Diagnostic and Laboratory Findings: LDL-C: 170mg/dL (High; target: ≤130 mg/dL) HDL-C:30mg/dL (low; taret ≥60 mg/dL) TC: 230mg/dL (High ; target ≤200 mg/dL) TG:110mg/dL (Nigh ; target ≤150 mg/dL)
Risk Factors: Family history of hypertension and high lipids, hypertension, lack of exercise; unhealthy diet, daily caffeine intake, overweight

	Drug related problem (s)	Goals of Therapy/Outcomes (include timeframe)	Treatment Plan	Justification	Monitoring (what will be monitored and frequency)	
					Efficacy	Toxicity (ADR)
1	Untreated condition: High lipids (Dyslipidemia)	LDL: <130 mg/dL (3 mths) HDL: >40 mg/dL (3 mths) TC: <150 mg/dL TG: <200 mg/dL	1. Therapeutic life style changes (TLC, healthy diet, exercise): for 3 mths – see next page 2. Follow-up in 3 mths: if LDL more than 100 mg/dL: we will start statins: 10-20 mg simvastatin (or other statin) 3. Follow-up in 6 wks: maintain if LDL near targets 5. If high TG or low HDL: we might add nicotinic a, fibrate, or fish oil	- you have a 5% risk a heart problem in 10 year -You also have 2 additional risks: hypertension and low HDL -Therefore our LDL goal is <130 mg/dL - Drug therapy will be considered if therapeutic life style changes did not control your lipid profile after 3 mths (Guideline)	LDL, HDL, TGL TC Monitor progress every 6 weeks	Not applicable during 3 mths of TLC If statins started: Report any unusual symptoms to your physician or pharmacist; these symptoms include: dark urine, muscle weakness or pain, feeling light-headed, fainting, fast, pounding, or uneven heart beats , feeling short of breath, jaundice (yellowing of your skin or eyes)
2	Inappropriate therapy: High blood pressure	BP: <140/90 mm HG	-We will withdraw Atenolol in 2 weeks -We will add ACE I (Lisinopril or captopril)	Atenolol (beta blocker) adversely affect lipids. It is also not controlling your BP	Monitor blood pressure Should be controlled with treatment to desired level (<140/90)	If BP gets too low- skip a dose, consult doctor Monitor potassium levels (every 3 months)

	Other intervention (detailed non-pharmacologic recommendations and counseling points, where applicable)
1	Diet: Make sure that you adopt a healthy diet: • Increase fiber in diet (fruits, vegetables, grains, most days and ≥5 times a day • two portions of fish per week, including a portion of oily fish, lean meat to replace diet rich in fat, cholesterol, and carbohydrates • plant sterols and sterols (2 g/day), and soluble fiber (10-25 g/d)
2	Physical activity and exercise: Brisk walking for at least 30 minutes daily; this is good for your overall health and specifically for your heart Water sport, house work activities, muscle strengthening activities (2 times a week)
3	Medication: With your medication, avoid grape fruit and its juice Tell your pharmacist which medication you are on before buying over-the-counter or having a prescription dispensed for you.
4	Report any unusual effects or symptoms to your physician or pharmacist: these symptoms include: dark urine, muscle weakness or pain, feeling light-headed, fainting , fast, pounding, or uneven heart beats , feeling short of breath, jaundice (yellowing of your skin or eyes)

Next scheduled follow up appointment: 6 weeks