

PHARMACEUTICAL CARE

What is Pharmaceutical Care?

"The responsible provision of drug therapy for the purpose of achieving definite therapeutic outcomes that improve the patient's quality of life." Hepler & Strand, 1990

OUTCOMES OF DRUG USE:

1. Cure of a disease
2. Elimination or reduction of symptoms
3. Arresting or slowing a disease process
4. Prevention of disease
5. Desired alterations in physiological processes (minimum risk)

Core Elements of Pharmaceutical Care

S No	Element	Description
1	Patient Oriented	Focus on individual needs
2	Acute & Chronic	Both addressed
3	Prevention	Of drug-related problems
4	Documented System	Records, needs, care
5	Continuous Care	Systematic & ongoing
6	Collaboration	With other healthcare providers
7	Integrated Care	Across all providers
8	Accountability	High responsibility
9	Optimize QoL	Health-related quality of life
10	Health Education	Emphasized

Who Needs Pharmaceutical Care?

IDEALLY: - All patients receiving medicines

DUE TO CONSTRAINTS (TIME/STAFF) – PRIORITIZE:

1. Chronic diseases: Diabetes, Hypertension, Asthma
2. Patients with polypharmacy (multiple medicines)
3. Complex drug regimens
4. History of non-compliance or adverse reactions

Essential Pharmacist Skills

GOOD COMMUNICATION

Active listening, empathy

SOUND THERAPEUTICS KNOWLEDGE

MOA, dosing, interactions

PRESCRIPTION INTERPRETATION

Identify DRPs before dispensing

RECORD MAINTENANCE

Documentation using software

Prerequisites for the Pharmacist

Prerequisite	Brief Explanation
Knowledge in pharmaceutics & clinical pharmacology	Understand drug formulation, ADME, therapeutic use
Mobilize drug distribution system	Manage storage, dispensing, delivery
Develop relationships	Collaborate with patients, doctors, nurses
Availability for patients	Accessible during critical moments
Commitment to quality improvement	Continuously evaluate outcomes and update practices

Institutional Setups Required

DATA SYSTEMS

- Patient contact notes
- Medical history
- QA & research

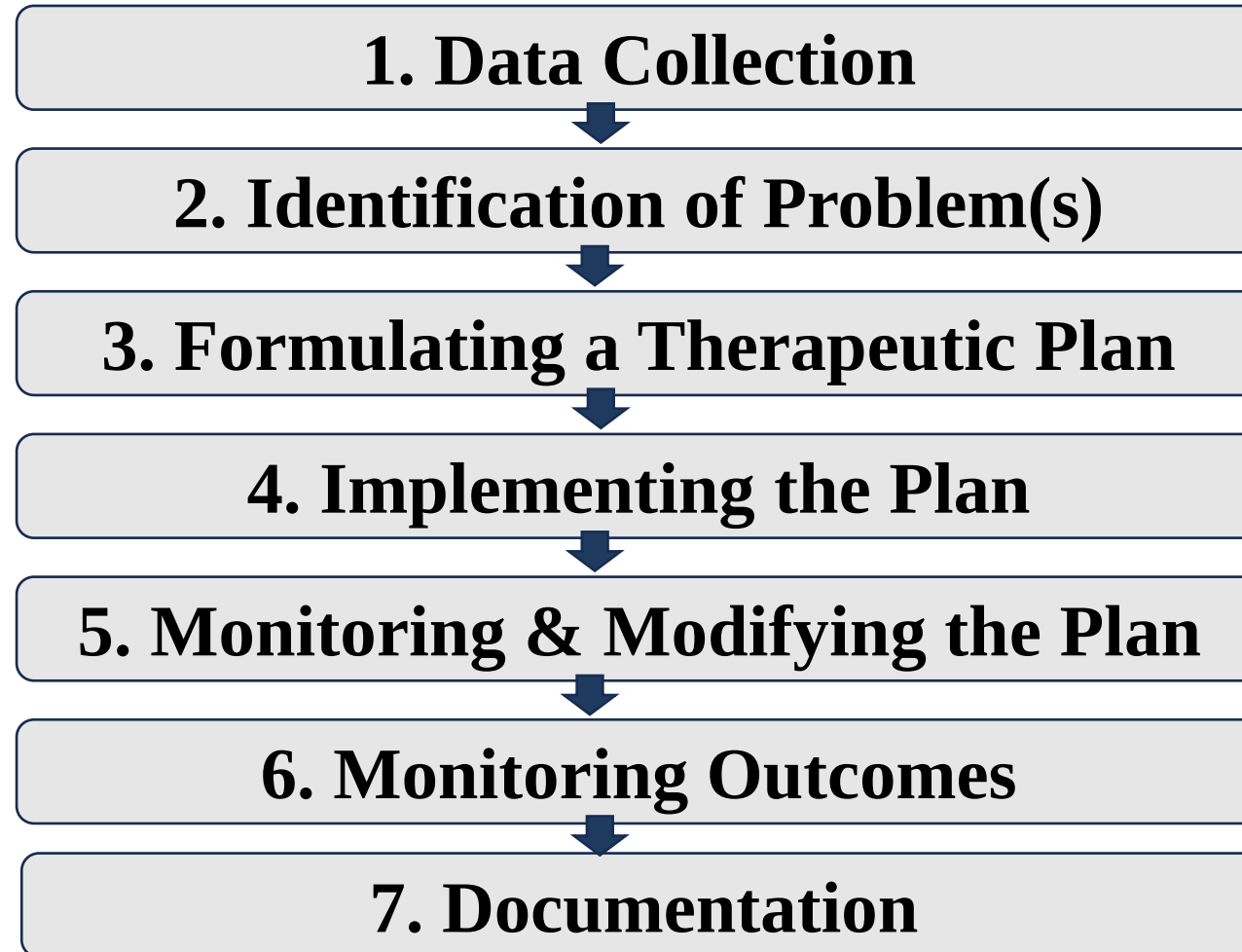
WORKFLOW

- Integrate care into daily activities
- Dispensing + clinical tasks

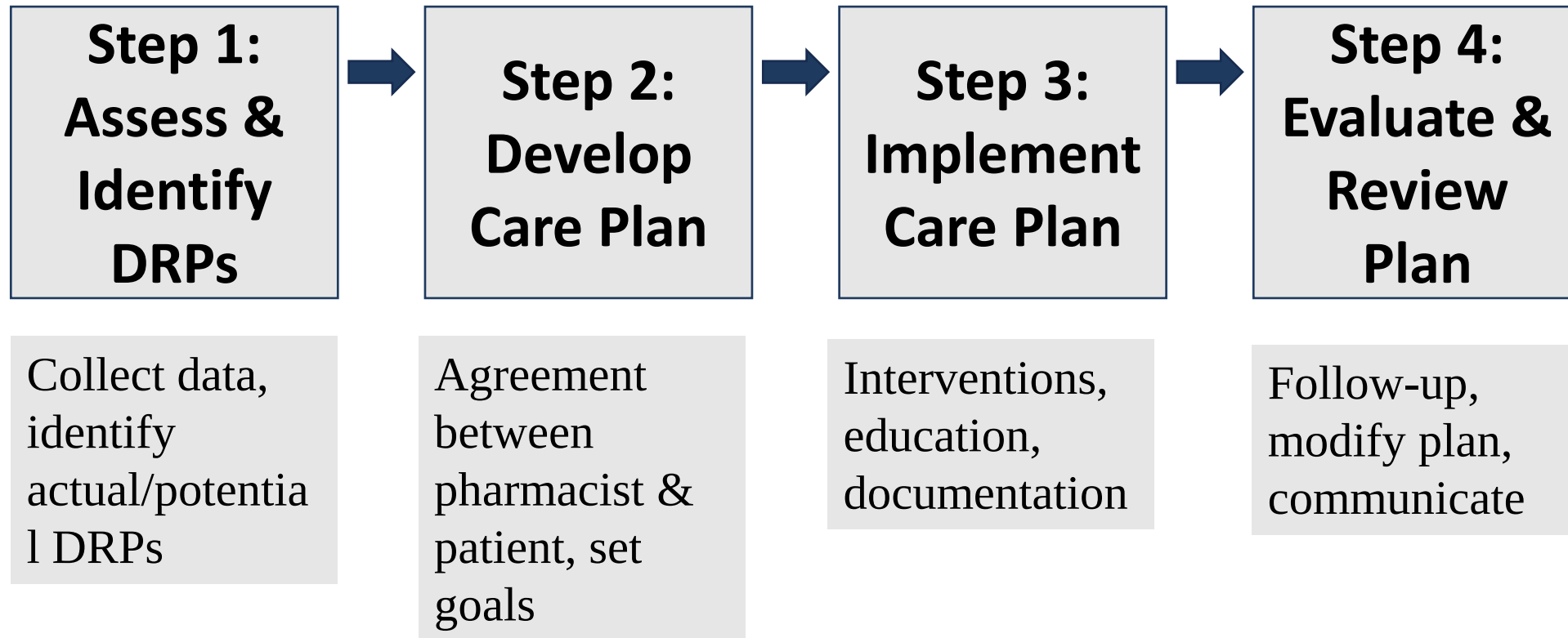
RESOURCES

- DUR, disease protocols
- Patient education materials
- Computer software

Six Practice Functions/Principles of Pharmaceutical Care



The 4-Step Pharmaceutical Care Process



Data Collection
Patient
Information

Category	Data Elements
Demographics	Age, Sex, Race, Religion, Height, Weight
Current Problems	Signs, symptoms of disease
Past Medical History	Doctors visited, past medicines, past Rxs
Current Medication	Current doctor, current Rx
Allergies	Medicines & environment
Pregnancy/Lactation	Status if applicable
Addiction	Tobacco, alcohol, drugs
Economic/Social	Social status, insurance

Identification of Problems

Drug-Related Problems (Actual vs Potential)

ACTUAL PROBLEMS

- New condition needing additional drug
- Wrong drug administered
 - Subtherapeutic dose
 - Incorrect administration
- ADR, drug-drug interaction
 - Non-compliance

POTENTIAL PROBLEMS

- Unnecessary medication
- Too much/little current therapy
 - Risk of ADR
 - Non-compliance
- Inappropriate monitoring

DRP Categories & Causes

DRP	Potential Cause
New/additional drug needed	New condition develops
Wrong drug	Ineffective or allergy
Too little of right drug	Subtherapeutic dose, wrong route
ADR	Allergy, risk factors not anticipated
Too much of right drug	High dose, double dosing, too long therapy
Medication not indicated	No valid indication, continued after improvement
Non-compliance	Lack of understanding, unclear instructions

Formulating Therapeutic Plan

1. Identify, evaluate, choose appropriate action
2. Improve safety, effectiveness, cost-effectiveness
3. Minimize current/future health problems
4. Collaborate with patient & healthcare team
5. Develop monitoring mechanisms (drug + non-drug)
6. Tailor regimen to patient's needs
7. Document plan with desired outcomes

Implementation Steps & Common Barriers

STEPS

1. **Contact providers to clarify/modify**
2. **Educate patient**
3. **Coordinate medications/supplies**
4. **Document all steps**
5. **Share information across settings**

BARRIERS

1. **Patient's economic condition**
2. **Insurance limits**
3. **Formulary restrictions**
4. **Risk of ADR or interactions**
5. **Cost of hospital stay (LOS)**

Tailoring Therapy – Factors to Consider

PATIENT FACTORS

Diagnosis, goals

Physio-pathological status

Medical history, past meds

Contraindications, compliance

Socioeconomic & special
considerations

DRUG FACTORS

Efficacy, ADRs

Ability to minimize risks

Drug-drug interactions

Dosage form, availability

Route, administration method

Monitoring Outcomes – The Four S's

SIGNS
Objective findings

SYMPTOMS
Subjective patient reports

SIDE EFFECTS
**Treatment-related
morbidity**

SEQUELAE
Consequences / recurrence

Causes of suboptimal outcomes: inappropriate prescription, dispensing error, non-compliance, poor monitoring

Special attention: narrow therapeutic index drugs (digitalis, theophylline, carbamazepine)

Documentation – SOAP Format

SUBJECTIVE (S)

Non-quantitative data: how patient feels, symptoms

OBJECTIVE (O)

Verifiable facts: lab tests, BP, medications, diet

ASSESSMENT (A)

Interpretation of subjective + objective findings

PLAN (P)

Actions, interventions, recommendations, follow-up

"If it is NOT documented, it is NOT done."

Why Document? Reimbursement, litigation risk, proof of judgment, cost-benefit evaluation, recognition

Role of Community Pharmacist in Pharmaceutical Care

1. Dispensing + Drug information + Patient counseling
2. Drug therapy monitoring
3. Health screening services
4. Identify DRPs and resolve with prescriber & patient
5. Maintain patient medication records
6. Educate on lifestyle, diet, safe medicine use
7. Advocate for rational use of medicines
8. "All activities can be done in a spacious community pharmacy manned by a trained practicing community pharmacist."

Barriers to Implement Pharmaceutical Care

Pharmacist-Based Barriers	Pharmacy-Based Barriers
Lack of time	Inadequate space & facilities
Increased workload	Lack of aids (software, materials)
Lack of knowledge/training	
Poor communication skills	
No legalization of services	
No remuneration	
Assumption that patient care is doctor's responsibility	

Mission of Pharmaceutical Care

To help people make the best use of medicines through high quality pharmaceutical care – restoring, maintaining and promoting health and well-being.

Pharmaceutical care is patient-oriented, collaborative, accountable, and outcome-driven – with the pharmacist at the center.