CHAPTER 2

PATIENT CARE PROCESS

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Abstract

The systematic patient care process provides a comprehensive framework for delivering clinical pharmacy services through five interconnected steps. Assessment techniques encompass medication history collection, laboratory data interpretation, and symptom evaluation to identify medication-related problems. Care planning involves prioritizing identified problems, establishing measurable outcomes, and developing patient-specific interventions considering efficacy, safety, and feasibility. Implementation strategies include direct interventions, prescriber recommendations, patient education, and care coordination. Monitoring evaluates therapy effectiveness, adverse effects, and adherence through appropriate parameter selection and follow-up scheduling. Documentation using standardized formats captures clinical reasoning, interventions, and outcomes through problem-oriented approaches, SOAP notes, and care plans. This standardized process ensures comprehensive pharmaceutical care delivery, facilitates communication with healthcare teams, demonstrates value, and improves patient outcomes through systematic medication management addressing both actual and potential drug therapy problems.

Keywords: *Pharmaceutical Care Plan, Medication Therapy Management, Drug Therapy Problems, Patient Monitoring, Clinical Documentation*

Learning Objectives

After completion of the chapter, the learners should be able to:

- Conduct comprehensive patient assessments integrating medication histories, laboratory data, and physical findings to identify medication-related problems.
- Develop patient-specific care plans with measurable goals, appropriate interventions, and monitoring parameters addressing identified medication-related needs.
- Implement pharmaceutical care interventions through direct patient care, interprofessional collaboration, and health system initiatives.
- Design appropriate monitoring plans with specific parameters, timeframes, and thresholds for evaluating therapeutic outcomes and adverse effects.
- Create comprehensive documentation that effectively communicates clinical findings, interventions, and follow-up plans using standardized formats.
- Apply the systematic patient care process across diverse practice settings and patient populations to ensure comprehensive medication management.

PATIENT ASSESSMENT TECHNIQUES

Patient interview techniques elicit complete medication information through structured questioning that progresses from current prescribed medications to non-prescription products, supplements, and intermittently used therapies. Open-ended inquiry employs questions including "What medications do you take and how do you take them?" rather than closed questions like "Do you take your medications as prescribed?" to reveal actual usage patterns. Brown bag review examines all medications physically brought by patients, revealing discrepancies between prescribed and actual regimens while identifying duplicate therapies, expired medications, and storage issues. Reconciliation with multiple sources validates patient-reported information against prescription records, discharge summaries, previous histories, and caregiver reports to construct a complete medication profile beyond any single source.

Clinical Data Collection

Medical record review systematically examines relevant components including problem lists, progress notes, laboratory data, diagnostic results, and consultation reports to establish clinical context for medication assessment. Targeted physical assessment performs

focused examinations relevant to medication therapy including vital sign measurement, cardiovascular assessment, respiratory evaluation, and neurological screening when appropriate to the clinical situation. Point-of-care testing utilizes immediately available diagnostic capabilities including glucose monitoring, INR determination, lipid measurement, and A1C testing to assess current status and guide therapeutic decisions without delayed laboratory processing.

Table 2.1: Patient Assessment Components and Methods

Assessment Component	Information Sources	Elements	Documentation
Medication History	Patient/caregiver interview, prescription records, previous records	Current medications, past medications, allergies/ADRs, adherence	Comprehensive medication list with doses, frequencies, indications
Medical History	Patient interview, medical records, provider communication	Chief complaint, past medical history, review of systems	Chronological disease progression, current status of conditions
Laboratory and Diagnostic Data	Electronic health record, lab reports, diagnostic imaging	Relevant lab values, diagnostic test results, trending data	Baseline values, significant changes, correlation with therapy
Physical Findings	Direct patient examination, provider notes	Vital signs, targeted organ system assessment, general appearance	Objective data, changes from baseline, medication-related findings
Psychosocial Assessment	Patient interview, social work notes, care team input	Health beliefs, social support, financial resources, functional status	Barriers to care, adherence factors, support needs
Lifestyle Factors	Patient interview, dietary records, activity logs	Diet, exercise, substance use, sleep patterns	Impact on therapy, modification targets, patient priorities

Subjective Information Gathering

Symptom assessment evaluates patient-reported experiences that may represent either medication effects or underlying disease

manifestations requiring distinction through systematic questioning about timing, characteristics, alleviating factors, and exacerbating conditions. Medication experience exploration examines patient perceptions of treatment effectiveness, adverse effects, and burden, recognizing that subjective experience significantly influences adherence and treatment decisions beyond objective clinical parameters. Health beliefs assessment explores patient understanding of their conditions, treatment goals, and medication expectations, recognizing that interventions misaligned with patient beliefs face significant implementation barriers regardless of clinical appropriateness.

Figure 2.1: The Pharmacist's Patient care Process

Adherence Evaluation

Pattern identification distinguishes between different non-adherence types including unintentional (forgetting, misunderstanding, complexity) versus intentional (concerns about necessity, side effects, costs) through targeted questioning about specific adherence challenges. Barrier assessment examines practical obstacles including physical limitations, financial constraints, health literacy challenges, and regimen complexity contributing to medication underuse. Measurement tools employ validated instruments including the Morisky Medication Adherence Scale, Brief Medication Questionnaire, or Adherence to Refills and Medications Scale to quantify adherence issues consistently across patients and over time.

Problem Identification

Medication therapy problems classification categorizes identified issues into established frameworks including indication (unnecessary therapy or untreated condition), effectiveness (incorrect drug or dosage), safety (adverse effects or interactions), and adherence problems to ensure comprehensive assessment beyond symptom management. Prioritization methods rank identified problems based on factors including clinical severity, patient concerns, contribution to current symptoms, and feasibility of intervention rather than addressing issues in order of discovery. Root cause analysis examines underlying factors rather than superficial manifestations, distinguishing between symptoms requiring symptomatic treatment versus those indicating need for therapy modification or discontinuation.

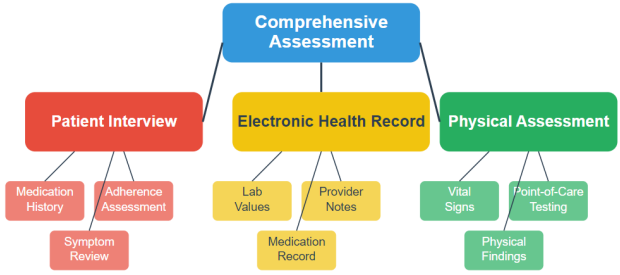

Figure 2.2: Assessment Techniques and Data Sources

CARE PLANNING

Measurable outcome identification establishes specific, quantifiable targets including laboratory parameters, symptom scores, functional capabilities, or quality of life measures rather than vague goals like "improvement." Timeframe establishment defines expected intervals for initial response, maximal effect, and reassessment points based on pharmacokinetic, pharmacodynamic, and disease progression considerations. Collaborative determination involves patients in goal-setting discussions, ensuring targets reflect patient priorities and preferences rather than solely provider-determined endpoints, significantly improving adherence to recommended therapies.

Table 2.2: Common Drug Therapy Problems and Assessment Findings

Drug Therapy Problem	Definition	Indicators	Examples
Unnecessary Drug Therapy	Medication without valid indication	No current diagnosis justifying therapy, duplicate therapy	"Patient taking two ACE inhibitors (lisinopril and enalapril) prescribed by different providers"
Need for Additional Therapy	Untreated condition, preventive therapy needed	Untreated diagnosis, suboptimal prophylaxis	"Patient with atrial fibrillation (CHA_2DS_2-VASc score=4) not receiving anticoagulation"
Ineffective Drug	Wrong drug for condition, refractory condition	Lack of response, disease progression despite therapy	"Patient's rheumatoid arthritis symptoms uncontrolled on current DMARD after 3 months"
Dosage Too Low	Subtherapeutic dose, drug interaction reducing effect	Inadequate response, subtherapeutic levels	"Vancomycin trough 8 mcg/mL (target 15-20 mcg/mL for endocarditis)"
Adverse Drug Reaction	Undesirable effect, unsafe drug	Symptoms of ADR, contraindicated medication	"Patient experiencing persistent dry cough on lisinopril therapy"
Dosage Too High	Excessive dose, impaired clearance	Toxicity symptoms, supratherapeutic levels	"Digoxin dose not adjusted for CrCl 25 mL/min; level 2.3 ng/mL"
Nonadherence	Failure to take medication as prescribed	Refill records showing gaps, patient-reported barriers	"Patient taking metformin once daily instead of twice daily due to GI side effects"

Therapeutic Alternatives Evaluation

Evidence-based assessment examines available research supporting various treatment options, considering quality of evidence, magnitude of effect, consistency across studies, and applicability to specific patient populations. Patient-specific factor consideration incorporates individual characteristics including age, comorbidities, concurrent medications, genetic factors, and past treatment responses that may influence therapy selection beyond population-based guidelines. Benefit-risk analysis systematically weighs potential advantages against possible harms for each therapeutic option, recognizing that guideline-recommended therapies may have unfavorable risk-benefit profiles for specific patients despite general population appropriateness.

Selection of Interventions

Medication therapy recommendations develop specific suggestions for initiating, modifying, or discontinuing medications based on assessment findings and therapeutic goals. Non-pharmacological interventions identify appropriate lifestyle modifications, dietary changes, physical activity recommendations, and self-management strategies complementing pharmacotherapy rather than operating in isolation. Referral determinations identify situations requiring additional expertise from medical specialists, other healthcare disciplines, or community support services based on identified needs beyond the pharmacist's scope.

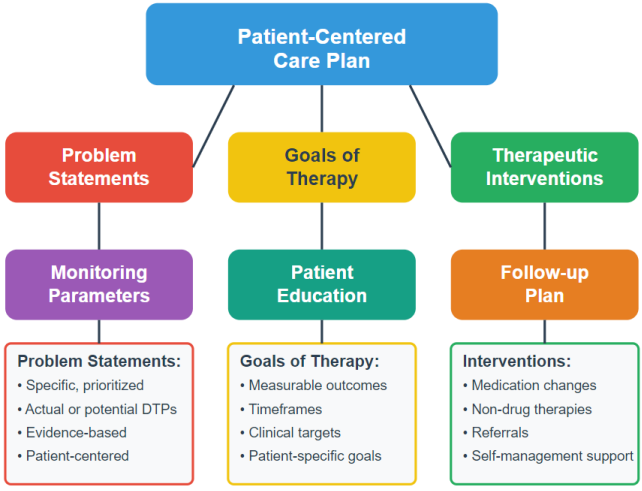

Figure 2.3: Components of a Patient-Centered Care Plan