

Developing a Pharmaceutical Care Plan

Patient care planning involves systematically assessing a patient's health problems and needs, setting objectives, performing interventions, and evaluating results. Not all patients require a written PCP. Pharmacists must assess their own patients and identify specific areas on which to focus. For example, the pharmacist may want to identify patients with specific diseases (e.g., asthma, hypertension, diabetes mellitus, or hypercholesterolemia).

The development of a PCP can be summarized as a five step process involving the *SOAP* format (*Subjective* data, *Objective* data, *Assessment*, and *Plan* of care). Using the example in Figure 1 for an asthma patient, the process can be described as follows.

Step 1. Gathering Information

The pharmacist should gather an accurate medication history, including both prescription and nonprescription medications and the reasons the medications were prescribed or taken. The pharmacist will likely have to obtain some information from the physician, such as laboratory test results and hospitalizations. If so, the pharmacist should get written permission from the patient before soliciting this information. Once this information is compiled, the preparation of a PCP can begin.

Step 2. Identifying Problems

From the patient's medication profile in Figure 1, only one problem is evident: diagnosis of asthma. If applicable, other problem should also be listed. In Figure 1, subjective and objective findings correlated to the problem are listed. Subjective findings are those that the patient describes (e.g., "I feel tired all the time," "I feel bloated," or "I woke up coughing"). References 12, 13, and 14 describe methods to ascertain this information. Objective findings are those that can be observed or measured by the pharmacist (e.g., patient appears tired, blood pressure is 180/105, pitting edema in ankles). In the patient with asthma, the pharmacist would have the patient use a peak expiratory flow meter and record the results.

Stop 3. Assessing Problems

The pharmacist analyzes and integrates the information gathered in steps 1 and 2 and draws conclusions in preparation for developing a patient-specific PCP. For example, in the asthma case (Figure 1), the pharmacist may first investigate the etiology of the factors that exacerbated the asthma. The pharmacist does not have to be involved in skin testing, nor does the pharmacist have to conduct a detailed, extensive history of all of the factors that may have precipitated the asthma. However, the pharmacist should attempt to determine if drugs (eg., aspirin, nonsteroidal anti-inflammatory agents, or beta-blockers) caused or exacerbated the asthma in the patient. Thus, the importance of an accurate and complete drug history becomes evident^{12,14}

Next, the pharmacist assesses the severity of the asthma. This could be accomplished (as shown in the plan) by determining the PEF, examining the patient's daily symptom and peak flow diary, or determining if the patient had been hospitalized and placed on steroids or a mechanical ventilator.

Step 4. Developing the Plan

In step 4, the pharmacist establishes goals linked to each of the patient's problems and specifies a course of action aimed at meeting each goal. Each goal (i.e., desired improvement) should be stated in terms of measurable outcomes that indicate the extent to which the particular problem has been resolved. Often, the patient has several problems, and the plan must be comprehensive enough to have a positive effect on the overall health of the patient.

Patient Profile and PCP for an Ambulatory Patient with Asthma

<i>Last name:</i>	Poplar	<i>First name:</i>	Hedda	<i>initial:</i>	M.
<i>Address:</i>	201 E. Wabash				
<i>City, State Zip:</i>	Anytown, State 12345				
<i>Telephone:</i>	556-1234				
<i>Birth date:</i>	11-9-41	<i>Ht:</i>	64'	<i>Wt:</i>	185 lb
		<i>Sex:</i>	F	<i>Race:</i>	White
<i>Allergies:</i>	Aspirin (bronchospasm)				
<i>Diagnosis(es):</i>	Asthma				
<i>Other information:</i>	Smoker (cigarettes), obese				

Drug	Strength	Regimen	Quantity
TheoDur	300 mg	1 tablet orally twice a day	100.
Albuterol MDI	200 puffs/month	2 puffs every 4 hours as needed	2

Asthma

Problem(s)*

Subjective and Objective Information

Assessment

Plan(s)/Goal(s)

Evaluation/Outcome(s)

Coughs at night, SOB on exertion, frequent exacerbations requiring MDI weekly, low HRQOL

Poor asthma control perhaps aggravated by smoking, obesity, and undercompliance with medication regimen

Refer to smoking cessation program

Follow up with patient to evaluate cough, SOB on exertion, and number of exacerbations

Leads to decreased physical, social, and physiologic well-being

Refer to dietitian

Check medication calendar and call to remind about refills

Review at next refill: pill count MDI usage, amount, technique

PEFRs between 60% and 80% of personal best

Inadequate anti-inflammatory medication

Suggest to physician that inhaled corticosteroid be added

Check to see if prescribed

Review use with patient

Determine if PEFR is more than 80% of personal best with PEFM

*Hedda Poplar is a 55-year-old white woman who presents at the pharmacy with new prescriptions for TheoDur and albuterol MDI. You, the pharmacist, take a medication and symptom history, measure a PEFR, and complete the patient profile in Figure 1. On the basis of your information, you conclude that her main problem is asthma, but she is also overweight and smokes cigarettes. As you develop the PCP for the patient, you note her problem of asthma in column 1 and use the SOAP format (Subjective and Objective information, Assessment, and Plan) to document the problem. Document the patient's Subjective and Objective information. Your Assessment (column 2) Include general ideas about why she has the problem of asthma. In column 3, you develop a general plan to resolve the identified problem. Finally, in column 4, you list general and specific outcomes measures to ensure that your plan is being met

HRQOL - health-related quality of life; MDI = metered-dose Inhaler; PCP = pharmaceutical care plan; PEFM = peak expiratory flow meter; PEFR = peak expiratory flow rate; SOB = shortness of breath.

Step 5. Evaluating the Achievement of Outcomes

Outcomes that will be used to evaluate the success of the PCP treatment plan must be meaningful, measurable, and manageable. Outcomes are specific, measurable indicators for the goals of treatment. Thus, they should be identified in the planning process. Mullins et al. provide a more complete discussion of patient outcomes.

The outcomes listed for asthma would include, but not be limited to, lower frequency and severity of acute exacerbations, fewer physician office visits, elimination of side effects, PEFRs that never fall below 80% of previous personal-best predicted rates, fewer emergency department visits, and maintenance of activities that enhance the patient's quality of life and may have been limited by the disease.

Documentation should include these components.

1. *Patient data* such as name, medical record number, location, date of hospital admission (if applicable), age, sex, height, weight, known medication or other allergies, and medication history.

2. *Name of pharmacist(s)* responsible for developing and implementing the PCP.

3. *Patient problem(s)* listed individually in order of potential pharmacotherapeutic impact (highest to lowest priority). Subjective and objective data that lead to identification of a specific problem and potential drug-related problems should also be included.

4. *Date* on which a patient problem is identified. Many diseases remain chronic throughout the patient's life. Problems such as urinary tract infection or upper respiratory tract infection usually resolve in 10 to 14 days.