Chapter 4 - Patient Data Evaluation
You’ve collected a history

- Pharmacists have not historically used any systematic method to identify drug therapy problems.
- We have depended on software and good luck.
- Compare to a dentist - they start every dental exam with the same tooth and use a systematic, reproducible method each time.
Ways to learn this

- This step often seems a bit fuzzy unless there is an actual case to apply it to.
- Slides describe 2 ways to do this:
  - Assess if drug therapy needs are met
  - OR
  - Use screening questions
What you are really doing

- Once the history has been collected, the pharmacist has to determine if all of the patient’s 5 basic needs for drug therapy are being met.
- Recall the 5 needs: (1) appropriate indication; (2) safety; (3) effectiveness; (4) compliance; (5) no untreated indications
Consider indication first
Are all drugs tied to a condition?
Are all conditions being treated in some way? Remember to consider non-drug therapy - diet, exercise, watchful waiting.
Could an untreated condition really be an adverse effect or drug interaction?
If you can conclude that all drugs are indicated and that the patient does not require additional therapy, then you have concluded that two patient needs (appropriate indication and no untreated conditions) are being met.
The book’s approach - 3

- Safety, efficacy and compliance are next and very common sources of disagreement between pharmacists and doctors.
- Pharmacists consider what they have read, while doctors consider what they have read and what they have previously done/seen.
- What patient-specific information suggests there is a problem here?
The book’s approach - 4

- What patient-specific evidence suggests the dose is too low, too high or just right?
- What patient-specific evidence suggests the dosage interval is too long, too short or just right?
- What patient-specific evidence suggests the duration of therapy is too long, too short or just right?
The book’s approach - 5

- Consider issues of dosage form:
- Manual dexterity, storage and administration, social problems prohibiting use, able to prepare a dose, understand how to use specialty dosage forms?
Is this the best drug for the patient? If you don’t think so, what is your evidence that it’s not?

Consider the impact of using the phrase “wrong drug” to a physician. Phrase it as a patient problem.

Are you basing this on literature or patient-specific data?
The book’s approach - 7

- What contra-indications exist and are they relative or absolute?
- Is more effective therapy available or is the condition refractory to current therapy?
- What patient-specific evidence exists to support your conclusions?
The book’s approach - 8

- What prevents the patient from complying with therapy?
- Pharmacists usually believe it’s a lack of understanding.
- Consider, is the patient deliberately non-compliant? Is something making it hard to comply? Could the patient not comply even if he wanted to?
The book’s approach - 9

- Do one last scan for ADR’s or drug interactions. You will have already found most of them, but check again.

- Disagreements on what to call a problem.

- Review of systems (ROS)

- **Always** work it through and identify the cause of the problem as well.
Another way

- A series of questions to ask yourself.
- This method may be a bit easier to describe, but may also require the pharmacist to learn a list of questions to consider and that’s hard.
- This method does work, and causes you to consider cause as part of your evaluation of the patient.
Drug therapy assessment questions

- Does the patient need the drug - is there an indication, is he misusing it, is he addicted, is the drug being used recreationally?

- Does the condition suggest that the drug is needed - would non-drug therapy be better, is there any duplicate therapy, is it being used to treat an avoidable ADR?
Drug therapy assessment questions - 2

- Is the drug and dosage form the best one for the patient considering the patient’s: medical condition, specific characteristics, other diseases, past medical history?

- Consider onset of action, drug potency, possible ADRs, age, pregnancy/lactation, allergies, patient tolerance of drug
Drug therapy assessment questions - 3

- Is the dose prescribed the best choice - too low (weight, other diseases, patient’s characteristics), too high (same)?
- If ADRs cannot be avoided, what is being done to manage them?
- Is drug storage an issue?
- Is drug administration an issue (timing, technique)?
Drug therapy assessment questions - 4

- What is the potential for drug interactions with drugs, food or other diseases?
- Can the patient comply - consider availability of the drug, cost, ability to swallow or administer, patient preferences
Drug therapy assessment questions - 5

- Does the patient need any additional drugs - untreated indications, need for synergistic or prophylactic therapy?
- Does the patient need any non-drug therapy - referral to another provider, education, support groups?
**Review of systems - 1**

- ROS is the heart and soul of a physician’s physical exam
- Pharmacists rarely do a complete ROS, but it can be useful in identifying drug therapy problems
- Basic concept - is the drug having an effect on any organ system or does the organ system have an effect on the drug?
Possible systems to consider: vital signs, renal, hepatic, fluids/lytes, cardiovascular, pulmonary, endocrine, hematological, gastrointestinal, genitourinary, musculoskeletal, neurological, psychological, dermatological, EENT
In practice, very few pharmacist consider all these systems.

Generally limit a pharmacist’s ROS to:

Renal - does the patient’s renal status have an effect on therapy or could therapy have an effect on kidney function?
Review of systems - 4

- Hepatic - does the patient’s hepatic function have an effect on therapy or could therapy have an effect on liver function?
- Dermatological - are any of the patient’s skin conditions caused by a drug or is a drug needed to treat them?
- Fluids, cardiac, GI, CNS and pulmonary considered on an as needed basis.