



Optimizing Adherence to Pharmaceutical Care Plans

Dr. Hussain A. Al-Omar, M.Sc.

**Clinical Pharmacy Department
College of Pharmacy, King Saud University**



Introduction

- Medication non adherence remains a major problem.
- National Council on Patient Information and Education(NCPIE) has aptly termed noncompliance "America's other drug problem."
- You have to assess and treat adherence-related problems that can adversely affect patients' health outcomes.

Definition and Scope of the Problem

- Medication non adherence is most simply defined as the number of doses not taken or taken incorrectly that jeopardizes the patient's therapeutic outcome.

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- Non adherence can take a variety of forms including:
 1. Not having a prescription filled,
 2. Taking an incorrect dose,
 3. Taking a medication at the wrong time,
 4. Forgetting to take doses, or
 5. Stopping therapy too soon



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- Compliance originates from a practitioner-centered paradigm and is more control oriented.
- It relies on patient obedience and sometimes stigmatizes the patient as engaging in deviant behavior if another course of action is chosen.
- A patient-centered approach is one in which the pharmacist engages patients to become more active in the continuum of decision making about their therapy.



Cont'd

- Poorer health outcomes may also result when a patient does not adhere to:
 1. Recommended lifestyle changes, such as exercise or smoking cessation, or
 2. Prescribed non pharmacologic interventions, such as physical therapy or dietary plans.

Cont'd



- Chronic diseases counseling such as asthma, hypertension need to assess and promote adherence to these non pharmacologic treatments as well.
- Non adherence is a known also as "invisible epidemic."

Cont'd



- Non adherence rates are high among patients with chronic diseases.
- These patients often must make significant behavioral changes to adhere with therapy.
- Changes can be difficult to integrate into everyday life.

Cont'd



- Non adherence can lead to:
 1. Decrease productivity,
 2. Increase disease morbidity,
 3. Increase physician office visits,
 4. Hospital re/or-admissions, and
 5. Death.

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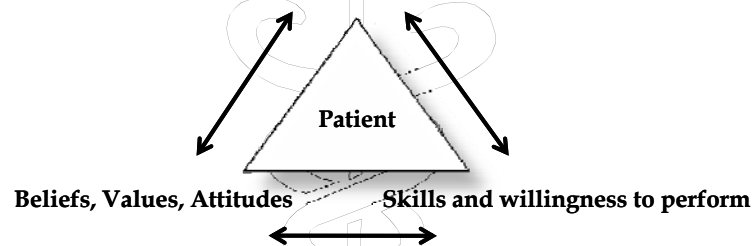


- For example, an estimated 125,000 deaths per year have been attributed to non adherence to treatment for cardiovascular disease.
- Non adherence places a huge burden on the patient and government economy.
- Pharmacies also lose revenue because patients often fail to refill prescription medications, especially for chronic diseases.

Cont'd

- For pharmacists the message is clear:
 1. To improve adherence to pharmacotherapy, and
 2. Improve health outcomes,
- You must assess each patient individually, then provide targeted interventions that are responsive to his or her unique risk factors and needs.

Cont'd Comprehension



A In the patient-centered adherence paradigm, the pharmacist integrates information About a patient's medication use from three perspective: the patient's Knowledge of the medication (comprehension); the patient's beliefs and Attitudes toward his or her illness and its treatment (beliefs, values, and attitudes); And the patient's ability and motivation to follow the regimen (skills and willingness to perform).

Non adherence as a Behavioral Disorder

- Non adherence has been studied widely by behavioral scientists in an attempt to explain and predict non adherence.
- Numerous risk factors for non adherence have been identified.

Example

- Clearly, non adherence is a multi factorial problem, and a host of contributing social, economic, medical, and behavioral factors have been identified.

Major Risk Factors for Non Adherence

1. Asymptomatic conditions
2. Chronic conditions
3. Cognitive impairments, especially forgetfulness
4. Complex regimens
5. Multiple daily doses
6. Patient fears and concerns related to medication effects
7. Poor communication

Cont'd

- A variety of direct and indirect methods are available to assess the presence and severity of non adherence.
- Effective interventions are available to treat non adherence.
- Many cases of non adherence can be treated with carefully selected interventions.
- Some cases may not be resolvable despite the best efforts of health care providers.



Cont'd

- Most chronic medical conditions require periodic reevaluation and therapeutic adjustments.
- Patients with adherence problems also should be reassessed on a regular basis.



Assessing Adherence

- Pharmacists need to evaluate how well a patient is adhering to pharmacotherapy and identify risk factors that may predispose the individual to non adherence.
- Both direct and indirect methods are available to assess adherence.

Direct Methods



- It can include blood-level monitoring and urine assay for the measurement of drug metabolites or marker compounds.
- Collecting blood or urine samples can be expensive and inconvenient for patients, and, moreover, only a limited number of drugs can be monitored in this way.

Cont'd



- The bioavailability and completeness of absorption of various drugs, as well as the rate of metabolism and excretion, are factors that make it difficult to correlate drug levels in blood or urine with adherence.
- It depends on the accuracy of the test and the degree to which the patient was non adherent before test was taken.



Indirect Methods

- Patient interviews, pill counts, refill records, and measurement of health outcomes.
- The interview is inexpensive
- It allows the pharmacist to show concern for the patient and provide immediate feedback.
- A drawback of this method include overestimate adherence, accuracy and interview correct interpretation of responses.



Cont'd

- Pill counts provide an objective measure of the quantity of drug taken over a given time period.
- It is time-consuming and assumes that medication not in the container was consumed.

Cont'd



- The refill record provides an objective measure of quantities obtained at given intervals
- It assumes that the patient obtained the medication only from the recorded source.
- Interviewing patients to detect non adherence is most effective when indirect probes are used.

Cont'd



- Pharmacists can obtain reliable information from patient or a family member or caregiver.

Probes Pharmacists Can Use to Assess Adherence

- Assessing the patient's medication knowledge or medication-taking behavior:
 1. What is the reason you are taking this drug?
 2. How do you take this medication?
 3. Are you taking the medication with food or fluid?
 4. Where did you receive information about this medication?
 5. Are you taking nonprescription drugs while on this medication?

Cont'd

6. Do you use any memory aids to help you remember to take your medication?
7. Do you depend on anyone to help you remember to take your medication or to assist you in taking it?

Cont'd

- Assessing attitudes, values, and beliefs regarding medication-taking behaviors
- 1. What results do you expect to get from this medication?
- 2. What are the chief problems that you feel your illness has caused you? Do you have any concerns about your illness and its treatment?
- 3. Are you satisfied with your current treatment plan?
- 4. How well do you usually follow a treatment plan?

Cont'd

- 5. What is the main concern you have about your medication?
- 6. Do you feel comfortable asking your physician or pharmacist questions about your medications?
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Cont'd



- Assessing whether the patient has the proper skills and is motivated or willing to follow through on the therapy plan.
- 1. Have you encountered any problems with your medication- or pill-taking procedure?
- 2. Are you confident that you can follow your treatment plan?
- 3. What might prevent you from following the recommended treatment plan?

Cont'd



4. How likely is it that you will ask your physician or pharmacist about your medications?
5. Can you explain how you remind yourself to take your medication on schedule?
6. Do you normally write down questions to ask your physician or pharmacist before an appointment?

Cont'd

- Factors that promote adherence:
 1. Disease-related factors
 2. Perceived or actual severity of illness
 3. Perceived susceptibility to the disease or developing complications
 4. Treatment-related factors

Factors that Promote Adherence

- Disease-related factors:
 1. Perceived or actual severity of illness
 2. Perceived susceptibility to the disease or developing complications
- 3. Treatment-related factors
- 4. Perceived benefits of therapy
- 5. Written and verbal instructions
- 6. Convenience of treatment
- 7. Medication provides symptomatic relief

Cont'd

- Patient-related factors
 1. Good communication and satisfactory relationship with physician
 2. Participation in devising the treatment plan
 3. Confidence in the physician, the diagnosis, and the treatment
 4. Support of family members and friends
 5. Knowledge about the illness

Factors that Reduce Adherence

- Disease-related factors
 1. Chronic disease
 2. Lack of symptoms

Cont'd

- Treatment-related factors
 1. Treatment requires significant behavioral changes
 2. Actual or perceived unpleasant side effects
 3. Regimen complexity and duration
 4. Medication takes time to take effect

Cont'd

- Patient-related factors
 1. Sensory or cognitive impairments
 2. Physical disability or lack of mobility
 3. Lack of social support
 4. Educational deficiencies (literacy problem) or poor English fluency

Cont'd

- Failure to recognize the need for medication
- Health is a low priority
- Conflicting health beliefs
- Economic problems
- Negative expectations or attitudes toward treatment

Designing Patient-Focused Interventions for Non adherence

- To improve adherence you should identify factors and causes of non adherence.
- It should be tailored to the individual patient.

Example

- A forgetful patient may benefit from a special package or container that provides a visual reminder that a medication was taken (for example, blister packaging or a computer-aided compliance package).
- Forgetful patients also can be advised to take dosages in conjunction with other routine daily activities, such as at mealtimes or before tooth brushing.

Cont'd

- Refill reminders or automatic delivery to the home also can be valuable for the forgetful patient, as can simplification of the dosage schedule, such as changing to a once-daily prescription.

Cont'd



- Follow-up is important to know how well the plan is working and whether changes are needed.
- Plan should also be reevaluated from time to time to assess its effectiveness and determine how well it meets patient expectations.

Cont'd



- Identifying and measuring the outcomes of a pharmaceutical care adherence plan is also important.
- Objective measures of improved health status and/or reduced health care expenditures document success in a well-designed pharmaceutical care plan.

Strategies for Enhancing Adherence

- Promote self-efficacy:
 1. Encourage patients to assume an active role in their own treatment plans.
 2. Make patient confident.
 3. Involving patients in decisions about their care.
- Empower patients to become informed medication consumers:
 - focus on educating for patient, family members and caregivers.

Cont'd

- Provide both written and oral information to such as:
 1. What is the disease?
 2. Which treatments have been prescribed or recommended and why?
 3. What is the patient's role in managing the disease?
 4. Which treatments have been prescribed or recommended and why?



Cont'd

5. What is the patient's role in managing the disease?
6. Which adverse effects may occur?
7. Perhaps surprisingly, the amount of factual information that a patient has about his or her medication is not highly correlated with adherent behavior.



Cont'd

- Avoid fear tactics.
- Scaring patients or giving them dire warnings about the consequences of less-than-perfect adherence can backfire and may actually worsen adherence.
- A more constructive approach is to help the patient focus on ways to integrate medication taking into his or her daily routine.



Cont'd

- Help the patient to develop a list of short-term and long-term goals.
 - Realistic, achievable, and individualized.
 - Encourage constructive behaviors, such as getting more exercise or beginning a smoking cessation program.



Cont'd

- Plan for regular follow-up.
 - Interact with the patient at regular.



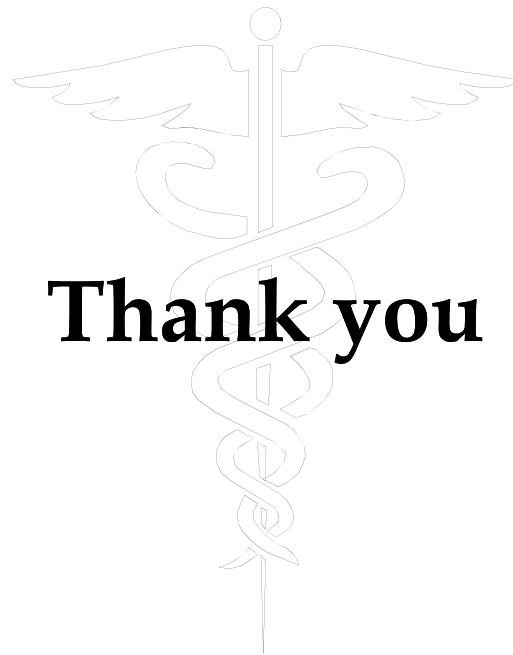
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- The plan should be adapted to the patient's lifestyle and be reevaluated from time to time.
- Time for counseling on adherence should be separated from the dispensing and pick-up functions.



Cont'd

- Implement a reward system.
- Giving prescription coupons or specific product discounts for successfully reaching a goal in the treatment plan can help to increase adherence, particularly in patients with low motivation.



Thank you