

MEDICATION ADHERENCE



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Adherence

- Defined by the WHO as " the extent to which a persons behaviour {in} taking medications.... Corresponds with agreed recommendations from a health care provider...."
- -world health organization

Medication adherence

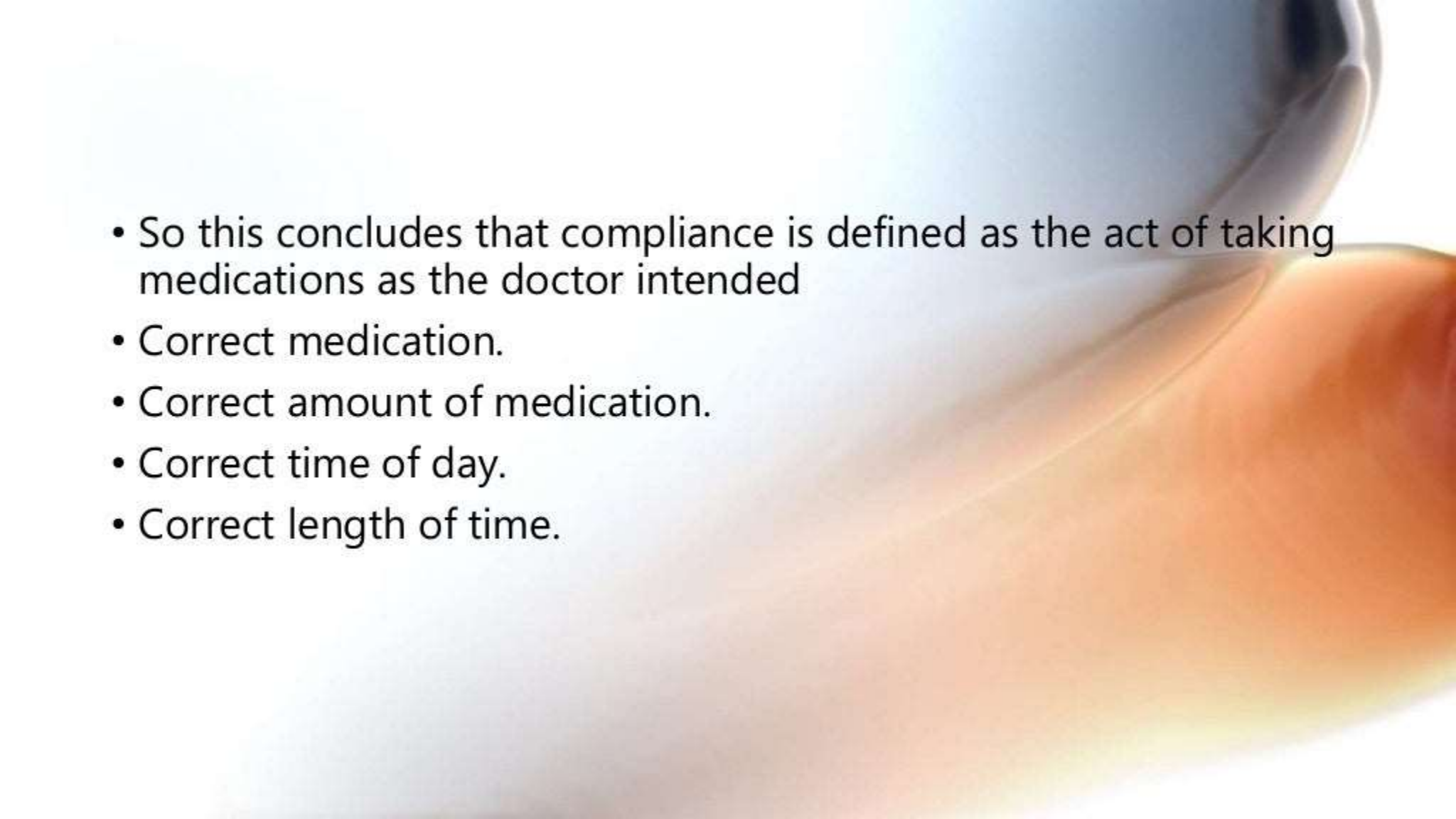
- The act of filling a new prescription for the first time, or refilling prescriptions on time.
- The extent to which patients take medications as prescribed by health care providers.

Benefits of Medication Adherence

- Enhances patient safety.
- Decreases health care costs.
- Improves long-term therapies and outcomes.
- Good investment for tackling chronic conditions

compliance

- The term compliance has come into **disfavour** coz it suggests that a person is passively following doctors orders, rather than actively collaborating in the treatment process.
- Adherence on the other hand, requires the persons agreement to the recommendations for therapy.

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- So this concludes that compliance is defined as the act of taking medications as the doctor intended
 - Correct medication.
 - Correct amount of medication.
 - Correct time of day.
 - Correct length of time.

Adherence & compliance is related to

- Knowledge & beliefs about illness.
- Motivation to get better.
- Confidence in ability to help oneself get better.
- Expectation about the outcome of treatment & results from not being adherent.

Medication non adherence include:-

- Fail to fill the first prescription.
- Fail to refill the prescription as directed.
- Skipping doses.
- Stopping the medications too soon.
- Taking the doses at the wrong time.
- Taking medication with foods, drinks or other medications it shouldn't be used with.
- Taking expired medication.
- Storing medications in the wrong place.
- Using devices improperly like inhalers.

Barriers to Taking Your Medications:

- Can't always see or feel the benefits of your medications
- Side effects
- Unsure what your medication is being used for
- Busy schedule or lifestyle
- Multiple medications, with multiple doses per day
- Hard to remember
- Concerned about risks of your medications
- Don't feel like you need the medication
- Cost

What happens when you don't take medications as prescribed?

- Your medications won't work as well, you won't feel better
- Your doctor may think it isn't working and add an additional medication
- You may feel worse
- Increased healthcare spending

What happens when you don't take medications as prescribed? (cont.)

- Potential harm- both from *too much* and *not enough* of your medication
 - The cause of 33-69% of medication related hospital admissions
 - Average length of stay in a hospital, due to non-adherence is 4.2 days
 - Preventable deaths due to non-adherence are estimated to be 125,000 each year

The Five Dimensions Of Non-adherence

- Defines adherence as a multidimensional phenomenon determined by the interplay of five sets of factors.
- A holistic approach to address improve medication adherence.
- These dimensions interact with one another.
- Are patients solely responsible for taking their treatments?

1. Socio-economic Factors

2. Condition related Factors

3. Therapy related Factors

4. Patient related Factors

5. Health system Factors

Socio-economic factors

- Poverty
- Illiteracy
- Unemployment
- Family dysfunction
- High cost of transport
- High cost of medication
- Low level of education
- Poor socioeconomic status
- Unstable living conditions
- Long distance from treatment centre

Condition related factors

- Disability level
- Follow-up treatment
- Emphasis on adherence
- Available effective treatments
- Progression /severity of the disease
- Co-morbidities (e.g. Depression and drug/alcohol abuse)

Therapy-Related factors

- Side-effects
- Treatment duration
- Available medical support
- Complex medical regimen
- Previous treatment failures
- Immediate beneficial effects
- Frequent changes in treatment

Pt related factors

- Forgetfulness
- Low motivation
- Psychosocial stress
- Disbelief in the diagnosis
- Low treatment expectations
- Low attendance at follow-up
- Lack of acceptance of monitoring
- Disease symptoms and treatment
- Hopelessness and negative feelings

Health systems factors

- Short consultations
- Poor health services
- Interventions for improving it
- Overworked health care providers
- Poor medication distribution systems
- Inadequate training for health care providers
- Lack of incentives and feedback on performance □ Lack of knowledge on adherence and of effective
- Weak capacity of the system to educate patients and provide follow-up
- Inability to establish community support and self-management capacity

strategies to Improve Med. Adherence

- The SIMPLE approach
- S – Simplify the regimen
- I – Impart knowledge
- M– Modify patient beliefs and behavior
- P – Provide communication and trust
- L – Leave the bias
- E – Evaluate adherence

S—Simplify the Regimen

- Encourage use of adherence aids.
- Investigate customized packaging for patients
- Adjust timing, frequency, amount, and dosage
- Match regimen to patient's activities of daily living
- Consider changing the situation vs. changing the patient
- Avoid prescribing medications with special requirements
- Recommend taking all medications at the same time of day

I—Impart Knowledge

- Advise on how to cope with medication costs
- Focus on patient-provider shared decision making
- Involve patient's family or caregiver if appropriate
- Keep the team informed (physicians, nurses, pharmacists)
- Provide all prescription instructions clearly in writing and verbally
- Reinforce all discussions often, especially for low-literacy patients
- Suggest additional information from Internet for interested patients

M—Modify Patient Beliefs and Behavior

- Address fears and concerns
- Provide rewards for adherence
- Empower patients to self-manage their condition
- Ask patients about the consequences of not taking their medications
- Have patients restate the positive benefits of taking their medications
- Ensure that patients understand their risks if they don't take their medications

P—Provide Communication and Trust

- Use plain language
- Practice active listening
- Provide emotional support
- Improve interviewing skills
- Elicit patient's input in treatment decisions

L—Leave the Bias

- Develop patient-centered communication style
- Acknowledge biases in medical decision making
- Understand health literacy and how it affects outcomes
- Address dissonance of patient-provider, race-ethnicity, and language
- Examine self-efficacy regarding care of racial, ethnic, and social minority populations

E—Evaluating Adherence

- Self-report
- Ask about adherence behavior at every visit
- Periodically review patient's medication containers, noting renewal dates
- Use biochemical tests—measure serum or urine medication levels as needed
- Use medication adherence scales— e.g.
- Morisky-8 (MMAS-8), Medication Possession Ratio (MPR),
- Proportion of Days Covered (PDC)

MEASURING ADHERENCE

Mostly 6 ways are followed

- There are several ways to measure medication adherence.
- 1. Medication event monitoring systems (MEMS): These are the most accurate method of measuring adherence because they record the date and time the medication bottle was opened through microprocessor technology embedded in the cap.



Disadvantages with microprocessor:

- 1. erroneous/not faithful/falls., because patient may remove more than one dose
- 2. Very expensive & different devices are needed for each medication
- 3. Therefore it is an impractical way to determine adherence in clinical practice.

- 2. Patient self-reports is easiest method when adherence is being assessed, open-ended questions should be asked. Instead of asking, "Are you taking your medications?" the HCP should phrase the question along the lines of, "How many times in the past week (month) have you skipped your medications?"

Brief Medication Questionnaire 1 (BMQ 1)

This form asks about the medications you currently take for high blood pressure. Please include any medication that you might be taking for high blood pressure, including water pills.

1. Did you bring your medications with you today?

No Yes

2. How many medications do you currently take for high blood pressure?

___ medication(s)

3. What medication(s) do you currently take for high blood pressure?

Medication name(s) or description	Letter Mark
Drug A	
Drug B	
Drug C	
Drug D	

4. Did you STOP taking any blood pressure medication in the past six months?

Yes No (Skip to next page)

5. What blood pressure medication was stopped? For what reason was it stopped?

• Metabolic Disorder • Discontinued

1. _____

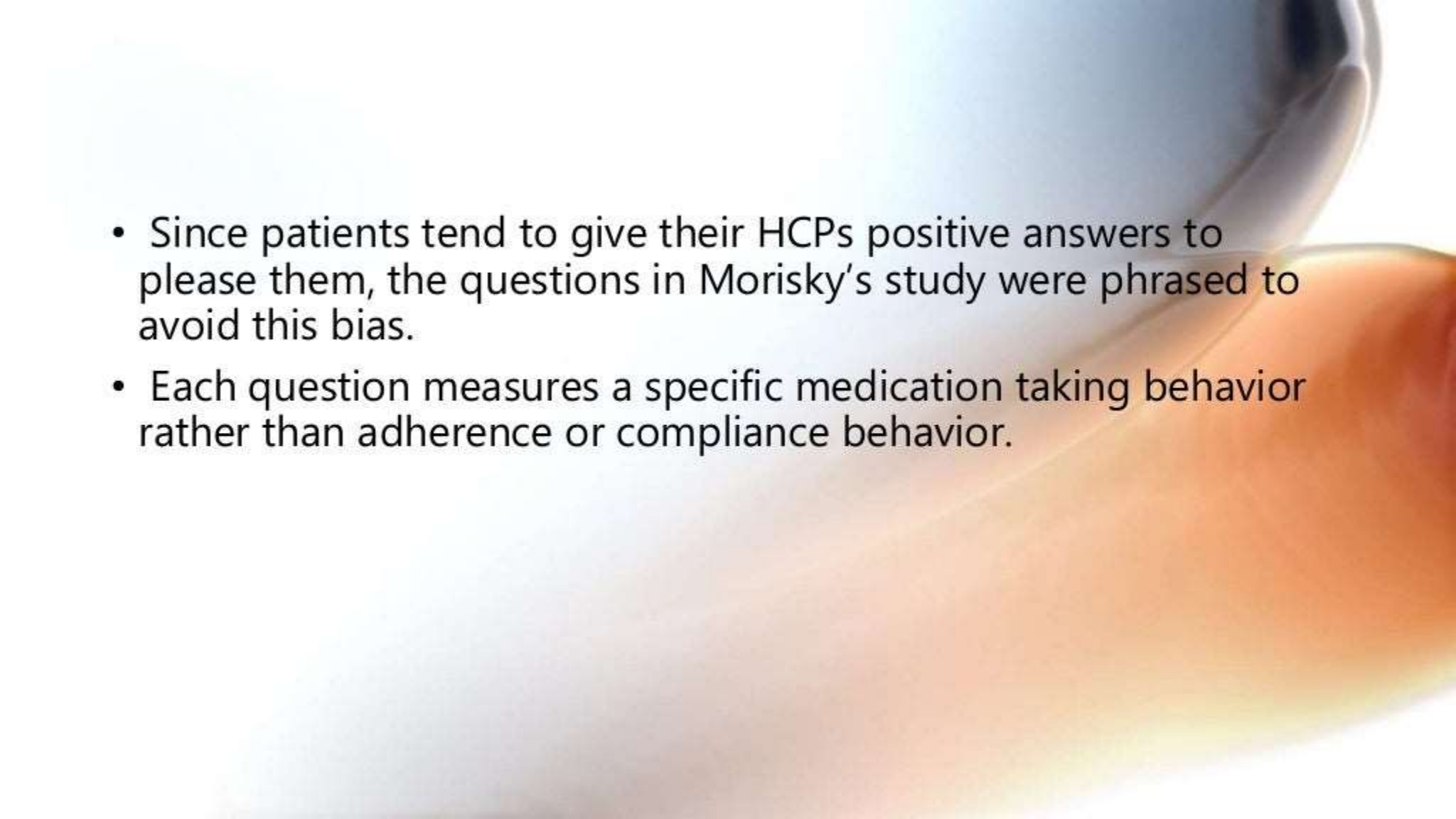
2. _____



3• Pill counts

- 4. Pharmacy databases or refill rates, and
- 5. Blood levels which also are employed in research, are more feasible options for clinical practice
- 6. Morisky's Medication Adherence Scale (MMAS) It was designed to distinguish poorly adherent patients from those with medium to-high adherence to their **Treatment** regimen

- MMAS consists of questions addressing multiple reasons for non-adherence.. e.g., because regimen complexity can lead to noncompliance. The scale contains a question assessing whether the patient feels hassled (trouble/Tense) about his or her regimen

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- Since patients tend to give their HCPs positive answers to please them, the questions in Morisky's study were phrased to avoid this bias.
 - Each question measures a specific medication taking behavior rather than adherence or compliance behavior.

Morisky's Medication Adherence Scales

- Q1** Do you sometimes forget to take your diabetic medication(s)?
- Q2 People sometimes miss taking their medications for reasons other than forgetting. Thinking over the past two weeks, were there any days when you did not take your diabetic medication(s)?
- Q3 Have you ever cut back or stopped taking your medication(s) without telling your doctor, because you felt worse when you took it?
- Q4 When you travel or leave home, do you sometimes forget to bring along your diabetic medication(s)?
- Q5 Did you take your diabetic medication(s) yesterday?
- Q6 When you feel like your blood glucose is under control, do you sometimes stop taking your medication(s)?
- Q7 Taking medication(s) every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your diabetic treatment plan?
- Q8 How often do you have difficulty remembering to take all your medication(s)?

¹MMAS-8: 8-item version of the Morisky Medication Adherence Scale. The MMAS (8-item) content, names and trademarks are protected by US copyright and trademark laws. Permission for use of the scale and its coding is required. A license agreement is available from: MMAR, LLC, Donald E. Morisky, ScD, ScM, MSPH, 294 Lindura Court, Las Vegas, NV 89138 - 4632; USA; dmorisky@gmail.com.

What patients can do to improve your adherence:

- Make a schedule
- Put them in a place that's easy for you to remember
- Include in your daily routine (meal, shower, brush teeth)
- Keep a current list of your medications
- Set alarms (there's an app for that)
- Use re-fill reminders and auto-fill options at your pharmacy
- Choose ONE pharmacy, instead of using multiple pharmacies
- Learn more about your medications

Things you should know about your medications:

- Name of medication and what it's being used for
- How long you will be taking the medication
- How you should take the medication, including how many times a day and how often
- Should you be avoiding any foods, medications, or activities while on this medication?
- Side effects to look for and what to do if they happen
- Where to store your medications

What can your *pharmacist* do to help?

- Inform you about your medications
 - What your medication is used for
 - What to expect from using medication
 - When will it start to work
 - Will you notice any changes?
 - Side effects to watch out for
 - Answer any of your medication questions

What can your *pharmacist* do to help?

- Recommend ways to help you remember to take medications

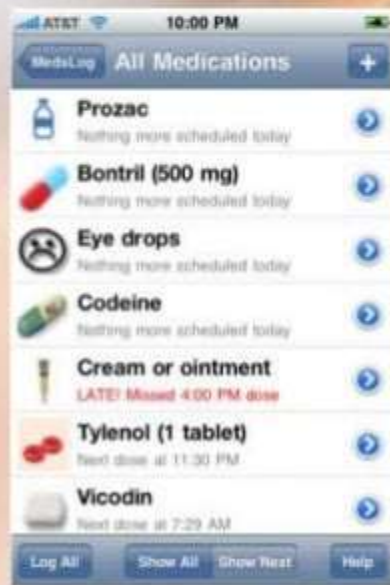
Pill box



Bubble packs



Apps



What can your *pharmacist* do to help?

- Fit medications into your schedule
 - Come up with a schedule, using your daily routines
 - Consider a medication that may work for a longer period of time
 - Recommend storage options for medications when traveling
- Cost
 - Cost savings/ discount programs
 - Look for a similar medication that may cost less
 - Avoid side effects
 - Prevent diseases from getting worse

What can your *pharmacist* do to help?

- Medication Therapy Management (MTM)
 - Appointment with your pharmacist
 - Bring in all medications and over the counter products (vitamins/herbals)
 - Pharmacist reviews all of your medications
 - Interactions
 - Side effects
 - Cost savings
 - Adherence and compliance
 - Increase your knowledge of your medications
 - Answer questions

Always remember...

- Non-adherence and non-compliance is common
- *You* can have an impact in your health
- The reasons people don't take medications are different for each person
- Be honest and open with your pharmacists and doctors
- Pharmacists *want to help* you overcome barriers to adherence and compliance



THANK YOU