**Goals and Objectives**

- List barriers to providers and patients that affect medication adherence
- Describe methods and available tools that can help determine (and predict) factors behind a patient’s non-adherence or potential non-adherence with medication therapy
- Show examples of how pharmacists can implement medication adherence programs in the retail pharmacy setting
“Drugs don’t work in patients who don’t take them.”
O. Everett Keen - former Surgeon General

- Adherence is the extent to which a person’s behavior — taking medication, following a diet, and/or executing lifestyle changes — corresponds with agreed recommendations from a health care provider. WORLD HEALTH ORGANIZATION

- Adherence to a medication regimen is generally defined as “the extent to which patients take medications as prescribed by their healthcare providers.”

www.healthtransformation.net/cs/news/news_detail?pressrelease.id=3963

"Keep watch also on the faults of the patients which often make them lie about the taking of things prescribed.”

Why Don’t Patients Adhere to Medication Therapy?

- Complex therapies
- Side Effects
- Failure to understand the need for the medication
- High out-of-pocket costs

Medication Adherence and Compliance: New Tools and Strategies for the Pharmacist

© 2010 Pharmaceutical Education Consultants, Inc. unless otherwise noted. All rights reserved. Reproduction in whole or in part without permission is prohibited.

The Startling Numbers
Source: www.nlm.nih.gov

- 125,000 Americans die annually (342 people every day) due to poor medication adherence;
- Ten to 25 percent of hospital and nursing home admissions are caused by the inability of patients to take their medications as prescribed and directed.
- 40 percent of patients still do not adhere to their treatment, the same as it was 3 decades ago.
- 20 percent of all new prescriptions go unfilled.

What Can Health Care Professionals Do?

Major barriers inextricably linked to health system and team factors:
- Lack of awareness and knowledge about adherence;
- Lack of clinical tools to assist health professionals in evaluating and intervening in adherence problems;
- Lack of behavioral tools to help patients develop adaptive health behaviors or to change maladaptive ones; gaps in the provision of care for chronic conditions;
- Suboptimal communication between patients and health professionals.

http://www.who.int/chp/knowledge/publications/adherence_full_report.pdf

Some Available Tools

- Pfizerpfh.com - Prescription for Health is a comprehensive program developed by Pfizer Inc. to help you improve patients’ adherence to medication instructions.
- The Pfizer Prescription for Health survey consists of 7 questions about medication received the past 6 months.
- It has check off boxes for answers

Pfizer’s Prescription for Health Questions

- How old is the patient taking the medicine?
- Do you know these facts about the medicine?
- Where did you learn these facts about the medicine?
- Did any of these things happen while you were taking the medicine?
- In the last 6 months did you ever leave your healthcare provider’s office not sure of how to take the medicine that the health care provider gave you?
- In the last 6 months did you ever leave the drugstore not sure how to take the medicine you got?
- If you had a question about your medicine after you get home, whom would you call?
MerckEngage.com - The Adherence Estimator®, a one-minute, evidence-based survey designed by Merck scientists to categorize patients into three groups – those who are at low, medium, or high risk for not adhering to a newly-prescribed medicine. After consumers answer three simple questions regarding their beliefs about a medicine, the tool provides easy to understand, personalized information which may address patient’s concerns about taking that medication.

1) I worry that my prescription will do more harm than good.
2) I am convinced of the importance of my medication.
3) I feel financially burdened by my out of pocket expenses for my prescription medication.

• Explain the role of chronic medications in chronic conditions. Pharmacists need to be familiar with the disease state, AS WELL AS the drugs. To discuss hyperlipidemia, need to know some of the lab values, and clinic effects of elevated cholesterol.
• Need to link the therapy prescribed with the disease state
• Costs: need to discuss costs, and alternative therapy for the patient.

Talking Points About Adherence: Who Benefits?
The Short Answer: “EVERYONE!”

• It’s a $290B problem
• Patients fall off therapy quickly. There are lots of predictors of non-adherence, but generally the best predictor is past behavior.
• There are a lot of reasons for non-adherence...it’s not just about reducing out of pocket spend. AND, to make it more complex, there are variations by gender, culture, medication, condition, trust, copay levels, etc.
• Adherence reduces total healthcare costs.
• Electronic prescribing gives us new visibility into primary adherence and should also create opportunities to improve this issue.
• It’s an area where everyone wins and there’s lots of research...but there’s no silver bullet.
And Specifically For the Retail Pharmacist

- Communications matter
- Starting on generics (or lower cost drugs) improves the probability of adherence.
- Pharmacist involvement is key and impactful.
- 90-day prescriptions lead to better medication possession ratio.
- Complexity of therapy (e.g., number of prescriptions) increases the likelihood for non-adherence.
- Interventions can improve adherence. BUT, physicians generally don’t see non-adherence as an issue they can address.

What the insurance company saves at the drug store they pay in the ER!

- A 2004 RAND study found that doubling copays for medicines reduced adherence by 25 percent to 45 percent.
- As patients’ use of medicines declined due to increased copays, emergency room visits increased 17 percent and hospital stays rose 10 percent among patients with diabetes, asthma, or gastric acid disorder.

CASE STUDY: In 2007 Pitney Bowes eliminated or reduced copays for statins and blood clot inhibitors, as an economic incentive.

- Adherence rates which had been steadily declining, stabilized immediately after the program was implemented, resulting in a 3 percent to 4 percent increase in the average adherence rate compared to a control group whose copays did not change. Lower cost sharing was also associated with an immediate 17 percent to 19 percent increase in the odds that employees were "fully adherent," meaning that they took medicines as directed 80 percent or more of the time.
- Several years earlier, Pitney Bowes also reduced employee costs for all prescribed diabetes medicines and supplies, resulting in a 6 percent decrease in direct health care costs per participant with diabetes.

Costs: From Our Patients’ Perspective

- Which of the following is the MOST expensive:
  - 5 day Course of Azithromycin (Zithromax)
  - 5 day course of Clindamycin 150mg QID (Cleocin)
  - 5 day course of Linezolid (Zyvox)
- Which of the following is the MOST expensive?
  - Piston Ring Set
  - Valve cover gasket set
  - Oil pump Screen assembly
  - Source NAPAonline.com
- Our patients have absolutely NO idea of the costs of their medication, until we tell them!
What the Pharmacist Can Do About Copays

• Nothing. The insurance sets the copay.
• BUT………………………………………
  – Switch to a cheaper drug in the class. Citalopram for Escitalopram. Simvastatin for Rosuvastatin.
  – Check out pharmaceutical companies websites for patient savings plans. Works only for brand names.
  – Use the discount provided by manufacturers. 
    • Problem: they are another plan that needs to be installed in the patient payment screen—more TECH time.
    • Problem: can not be used for Medicare-D plans
    • Problem: Patients need to activate the copay cards

The AMA Says: Copays Do MATTER

• Each $10 increase in co-pays is associated with a 10% increase in noncompliance, says Niteesh Choudhry, MD, PhD, associate physician in the Division of Pharmacoepidemiology and Pharmacoeconomics at Brigham and Women’s Hospital in Boston.
• Eliminating out-of-pocket costs can improve compliance rates by as much as 8%, which may not sound like a lot but could pay off if enough of those patients avoid hospitalization

• Source: http://www.ama-assn.org/amednews/2011/10/03/prsa1003.htm

Medicine Today: Focus on Prevention

• Statins
  • Prevent heart attacks & strokes
• Insulin, Biguanides & secretagogues
  • Prevent diabetic complications
• Aspirin, clopidogrel, warfarin
  • Stroke prevention
• Anti-hypertensives
  • Heart attack prevention and stroke
• Bisphosphonates, etc
  • Prevent fractures
• Anti-glucoma prevention
  • Preserves sight

Recognize Patients Who Need Extra Help

Look for common signs in patients who:
• Do not know the names of their medicine, but rely on size, shape and color.
• “Forget their glasses”
• Delay in picking up meds or refills
• Have problems asking questions or explaining concerns

Help out:
• “A lot of people have trouble reading labels and remembering how to take their medications.”
• Is this a problem for you??
• What can I do to help you.

Source: Agency for Healthcare Research and Quality
Nearly 9 out of 10 adults have difficulty using the everyday health information that is routinely available in our health care facilities, retail outlets, media, and communities. (Kutner et al., 2006)

Remove physical barriers.
• But have a private area set aside for consults
• Have bags flagged for mandatory pharmacist consultation.

Increase knowledge and awareness.
• Improve written materials.
• Improve communication.
• Facilitate & confirm patient’s comprehension of their medications and how to take them.

Slow down the pace of your speech.
• Use plain, non-medical language:
  – “Blood pressure pill” [instead of “antihypertensive”].
• Include key information about timing:
  – Morning, noon, night, bedtime [instead of 4X a day].
• Avoid jargon:
  – “Take 2 hours before lunch or 2 hours after lunch [instead of “Take on an empty stomach”].

Since outcomes are so dependent on medication adherence, why then are pharmacists most likely to counsel a patient only on a NEW medication?

How often do you as a pharmacist discuss medication ADHERENCE with a patient?

Shouldn’t we spend as much time discussing refill adherence, as we do discussing new therapy?
Barriers to Pharmacist Communication

• Too busy!
  – Checking prescriptions
  – Inventory issues—drug shortages
  – Insurance issues
  – Phone
    • Answering physician questions
    • Transcribing orders
    • Patient questions
  – Management responsibilities

Insurance Issues

• “When you let those black boxes in your pharmacy, you will kiss your profession goodbye” – Dick Treese c.1992

• Technicians address problems; Pharmacists address people.
  – Spend time and money training technicians
  – Incentivize their performance

Spend Less Time Entering and Processing Rx Claims

Even the Rx cards are difficult
  – Group Numbers on some are “buried”
  – Is it a Zero (0) or the Letter (O)
  – Cards should change only when patient switches insurance
  – Should have magnetic stripe that can be swiped
  – 12 point type on white
  – Fields should match
  – Expiration dates??
  – APhA, NACDS??
  – NCPA, PPA??

Flagging Patients for Med Adherence

• Insurance Companies
  – Conversation with Major Insurance Company
  Pharmacist Mark G:
    • Problem: Rx not tracked if cash. “So often, the cheapest (and by the way most effective) medications are on those $4.00 lists, so we at the insurance company never see them.” “I get a list of patients to call for non-adherence and they tell me they get their Rx on a $4.00 cash plan; I spend the rest of the call talking about their golf game”
    – Statins (Simvastatin, Lovastatin, Pravastatin)
    – ACE inhibitors (Lisinopril, Enalapril, Captopril)
    – Diuretics (Furosemide, Hydrochlorothiazide)
    – CCB: (Amlodipine)
  – Mark feels this is best done at the Retail level
Another “DOT” at Broad Ave Pharmacy?

• Lead Tech, on refills watches for meds filled more than 7 days late.
• He flags the receipt with a green dot.
• When patient picks up Rx the pharmacist uses that opportunity to discuss medication adherence.

PharmCon is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing education.

Adherence Rates for Specific Disease States

<table>
<thead>
<tr>
<th>Disease State</th>
<th>Adherence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV disease</td>
<td>83.3%</td>
</tr>
<tr>
<td>Cancer</td>
<td>79.1%</td>
</tr>
<tr>
<td>Cardiovascular Disease</td>
<td>76.6%</td>
</tr>
<tr>
<td>Infectious Disease</td>
<td>74.0%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>67.5%</td>
</tr>
<tr>
<td>Sleep Disorders</td>
<td>65.5%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>51.0%</td>
</tr>
<tr>
<td>Asthma</td>
<td>50% and less</td>
</tr>
</tbody>
</table>

PharmCon is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing education.

Chronic Diseases

• Chronic disease affects nearly one in two Americans and treating chronically ill patients accounts for $3 out of every $4 spent on medical care.

• People who don’t take their medications as prescribed end up costing the health system up to $290 billion per year in increased medical costs. Costs include: including costs from avoidable hospitalizations, nursing home admissions, and premature deaths.

Source: nehi.net

PharmCon is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing education.

One Pill Does It All!

• Compared to the use of 2 or more separate medications, fixed-dose combination therapies have been found to reduce patient nonadherence by 26 percent.

• Studies have also reported that a fixed-dose combination of two diabetes medicines increased adherence by almost 13 percent compared with taking two separate medicines.

• Hypertensive patients taking a fixed dose combination had 80% adherence compared to less than 70 percent of patients taking two separate medicines. (PhRMA)
Overall, 3.27% of index prescriptions were abandoned
LEAST LIKELY to be abandoned: opiate prescriptions.
MOST LIKELY to be abandoned:
- Prescriptions with copayments of $50 (or more) were 4.68 times more likely, to be abandoned than prescriptions with no copayment.
- New users of medications had a 2.74 times greater probability of abandonment
- Electronic RX were 1.64 times more likely to be abandoned than those that were not electronic.
- Follow up phone calls by the pharmacy were of no value.

Gross profit per prescription: In 2010, the average gross profit per prescription drug was $13.80
The average patient with a chronic condition utilizes approximately 3 different chronic medications.
For many non-adherent patients it will take 40 to 45 days to refill a 30 day medication.
A very good goal is to identify 2 patients each business day that are on maintenance medications. The purpose of an adherence program is to have the pharmacist work with these identified patients to promote perfect adherence beginning on the day the patient is recruited into the program.

Without an Adherence Program: (refill every 40 days @ $13.80/Rx gross profit) yields 9.1 refills per Rx per year. (3Rx x $13.80) x 9.1 Refills per year = $376.74/year
After Implementing an Adherence Program (refill every 30 days @ $13.80/Rx gross profit) yields 12 refills per Rx per year. (3Rx x $13.80) x 12 Refills per year = $496.80/year
Amounts to $120.06/year increased gross profit.

If we recruit just 2 new patients per day for 4 months for an in house medication adherence program yields 200 patients. (not being aggressive as the NCPA examples)
With two hundred patients generating $120 dollars, we would add $24,000 per year.
- 5 years = $120,000.00
- 10 years = $240,000
Of Special Note

• We have not increased our advertising budget

• We have not given away any free gas credits, coupons, premiums or other expensive advertising gimmicks.

• We are using our in house resources, with the very same patients. No hassles with transfers from other stores, adding new patients, new insurance issues etc.

What Can We Do As Pharmacists To Help Our Patients Increase Adherence

Devices

• Pillbox (Daily, weekly, monthly)
• Medicine On Time ®
• Dial vial
• Alarm watches
• Key ring
• Beeper services
• Email reminder
• “iPhone App” and Cell phone reminders

What Are You Doing To Increase Patient Adherence?

Describe your experience in this area by typing in the chat box.

Questions & Comments