



Patient Adherence to Cardiac Medications

A Dilemma in Search of a Solution

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Adherence



- The extent to which a person's behavior corresponds with agreed recommendations from a health care provider
 - Requires that the patient accept and follow-through with treatment recommendations
- Receiving increased focus in response to the growing burden of chronic illness and providers' increasing reliance on patient self-management
 - Wagner Chronic Care Model
 - Advanced Medical Home / Patient Centered Medical Home
 - Chronic Care Management, Reimbursement & Cost Reduction Commission

Impact of Non-Adherence



- Recent U.S. studies found that roughly half of medical patients do not comply with physician advice
 - 125,000 deaths in the U.S.
 - Significant health risks and financial burden to many others
- 188.3 million visits a year result in patients not following the recommended course of treatment
- Estimated financial waste associated with non-adherence could be as high as \$300 billion per year (2001 healthcare costs)

Beta Blockers Post AMI



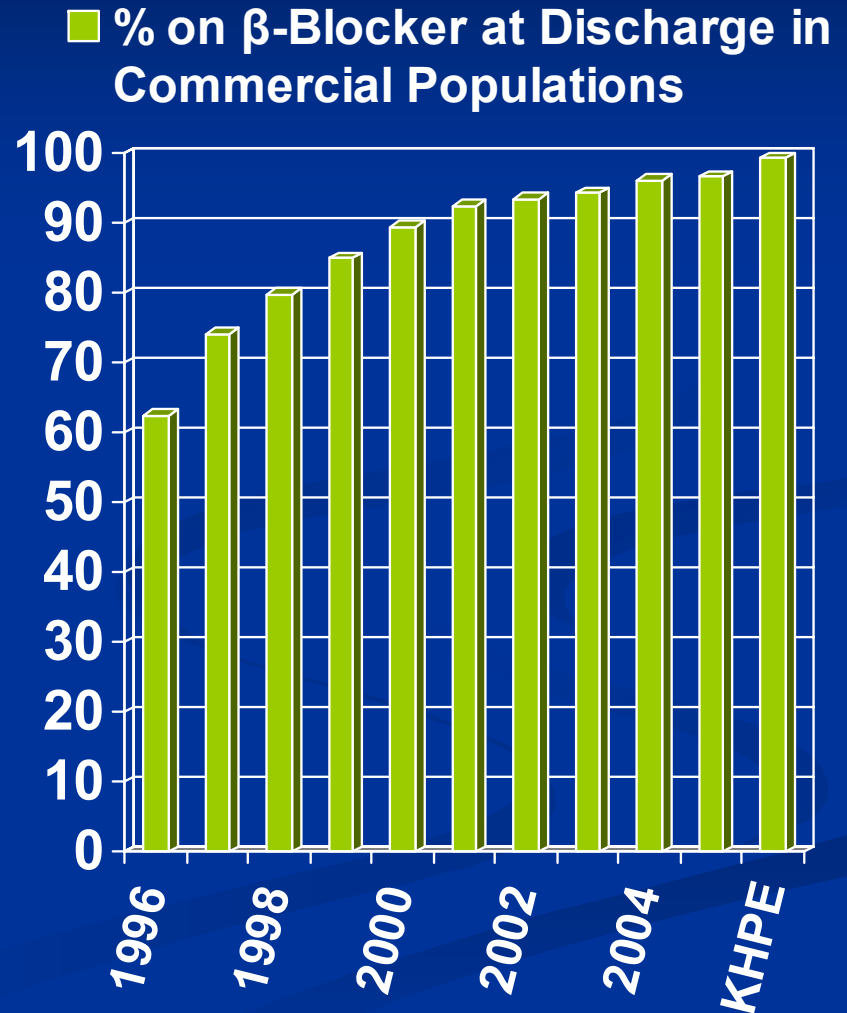
- Multiple large-scale clinical trials have proven beta blocker efficacy in improving survival and reducing recurrent infarction
- Nearly 8 million Americans have a history of myocardial infarction (MI)*
- Each year, 865,000 new and recurrent MI cases are reported*
 - Approximately 300,000 are recurrences*
- ACC/AHA Guidelines: Long-term use of beta blockers post-MI can reduce the risk of recurrent infarction and improve survival by up to 40 percent
- AHA/ACC Secondary Prevention Guidelines for Patients with Coronary and Other Vascular Disease: “Start (beta blocker) in all post MI patients and continue indefinitely”

*American Heart Association; Heart Disease and Stroke Statistics-2004 Update

Increased Prescribing at Discharge



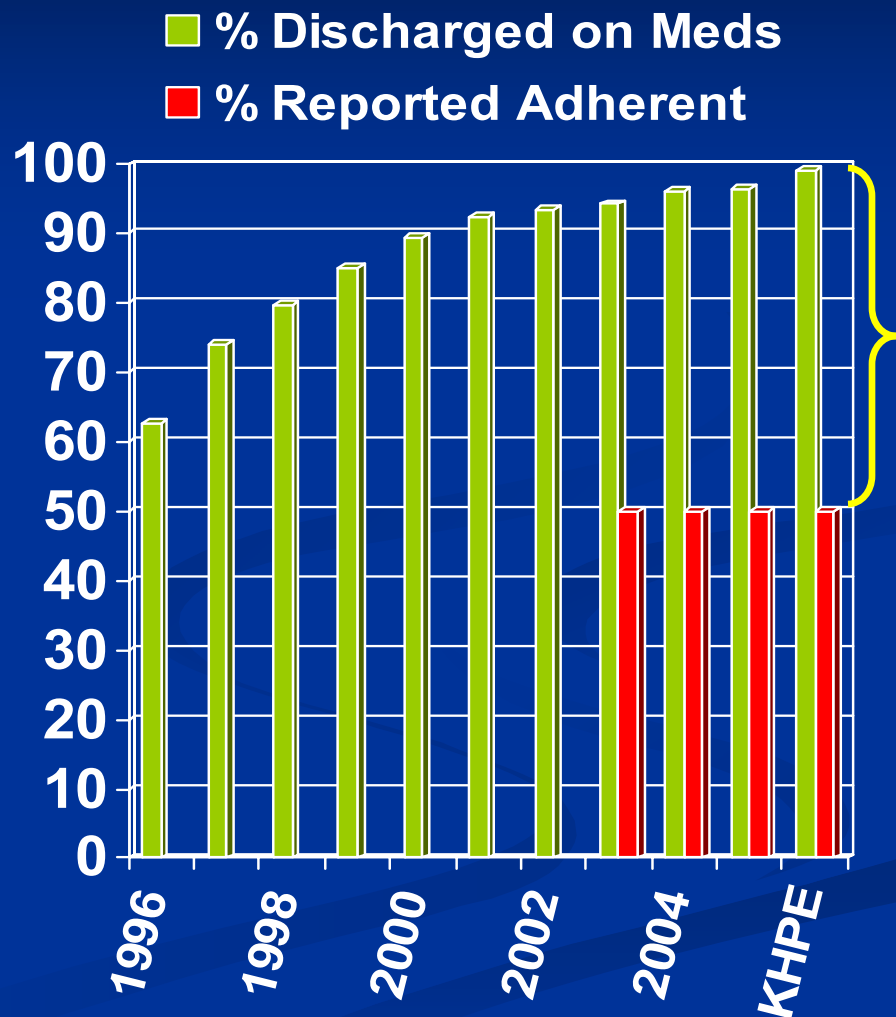
- Quality Initiatives have led to improvements in *prescribing beta blockers at hospital discharge* following an MI:
 - Guidelines Applied in Practice (GAP) 2002 - 93%
 - Get with the Guidelines 2002 - >97%
 - JCAHO 2003 - 90%
 - NCQA – HEDIS (Chart) represents national mean for health plan performance



The Opportunity



- Data from the Duke Databank for Cardiovascular Disease demonstrated chronic outpatient use of beta blockers in patients with CAD was only 50%
- *Council for Affordable Quality Healthcare (CAQH)*, a not-for-profit alliance of America's leading health plans and networks sought to validate this observation in collaboration with:
 - American Academy of Family Physicians
 - American College of Cardiology
 - American Heart Association
 - Duke Center for Education and Research on Therapeutics



A CAQH Team Effort: “heartBBEAT for Life”



Member Health Plans

- Provided expertise and distribution channels in the areas of member communication, provider communication and care management
- Developed common technical specifications and submitted de-identified data to CAQH

American Heart Association

- Provided scientific and content-matter expertise as well as distribution channels for consumer materials

Professional Societies

- Provided specialty perspective and content-matter expertise

Duke Center for Education and Research on Therapeutics

- Provided scientific and technical expertise in initiative and measure development
- Independently analyzed data and disseminated results
- Served as expert opinion leaders for on-line CME

Quantitative Research Findings: Validation of Beta Blocker Adherence

The Study (Year 1)



Study Specifics

- Research funded and conducted by CAQH
- Independent data analysis by investigators from the Duke Clinical Research Institute
 - Duke investigators were supported in part by a grant from the Agency for Healthcare Research and Quality
- Data collected by 11 health plans across the country

The Patients

- >17,000 patients
- Mean age: 60 years
- All patients had medical and prescription drug benefits
 - Commercial insurance (80%)
 - Medicare + Choice Plan (20%)

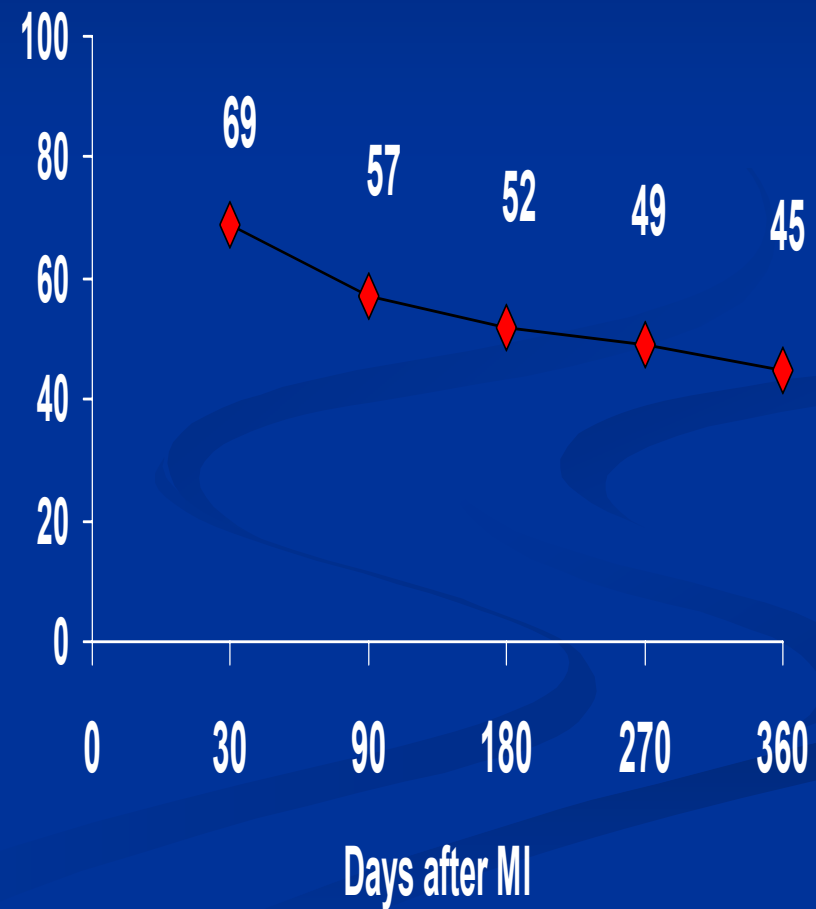
The Study Results (Year 1)



The Methodology

- Cumulative adherence to beta blockers at 30, 90, 180, 270 and 360 days after MI
- Adherence defined as $> 75\%$ days supply of medication purchased in the period
- Assessed by prescription claims
- Exclusions:
 - Hypotension
 - Bradycardia
 - Heart block greater than 1st degree

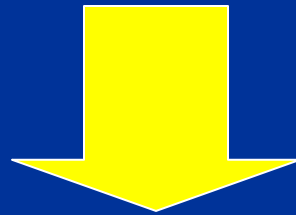
National Cumulative Adherence (%)



Study Conclusions



- Greatest drop in adherence occurred between 30 and 90 days after hospital discharge
- Low long-term adherence not attributable to absence of medical insurance or prescription drug coverage
- In commercial products, slightly lower adherence among women



Future quality efforts should focus on long-term beta blocker adherence

Sources: Kramer et al; Abstract in Circulation 2004; 109 (20).; Kramer JM, Hammill B, Anstrom KJ, Fetterolf D, Snyder, R, Charde J, Hoffman BS, LaPointe NA, Peterson E. National evaluation of adherence to β -blocker therapy for 1 year after acute myocardial infarction in patients with commercial health insurance. Am Heart Journal 2006; 152:454.e1-454.e8.

Adherence For Multiple Medications

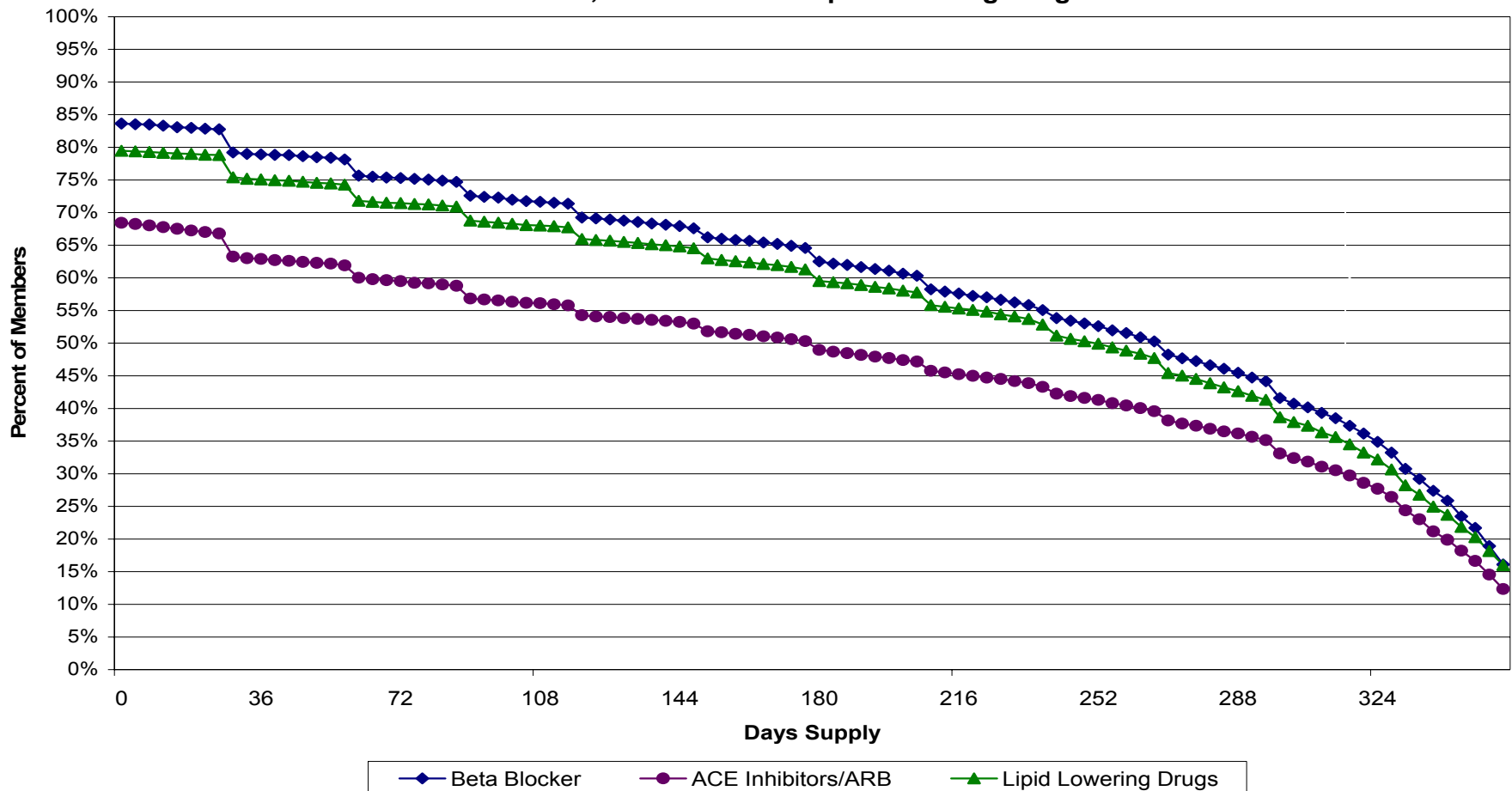


- Subsequent Phase of the Study
 - Expanded scope to compare adherence among 3 drug classes commonly used after MI
 - Beta Blockers
 - ACE/ARB
 - Lipid Lowering
- Results showed:
 - Highest decline occurs within 90 days of hospital discharge
 - Males tend to have higher rates of 30-day adherence for all drug classes
 - Older patients have substantially lower adherence

Multiple Medication Adherence



Percent Members with Cumulative Days Supply (over 360 days)
2004 National, All Products, All Ages
Beta Blocker, ACEI/ARB and Lipid Lowering Drugs

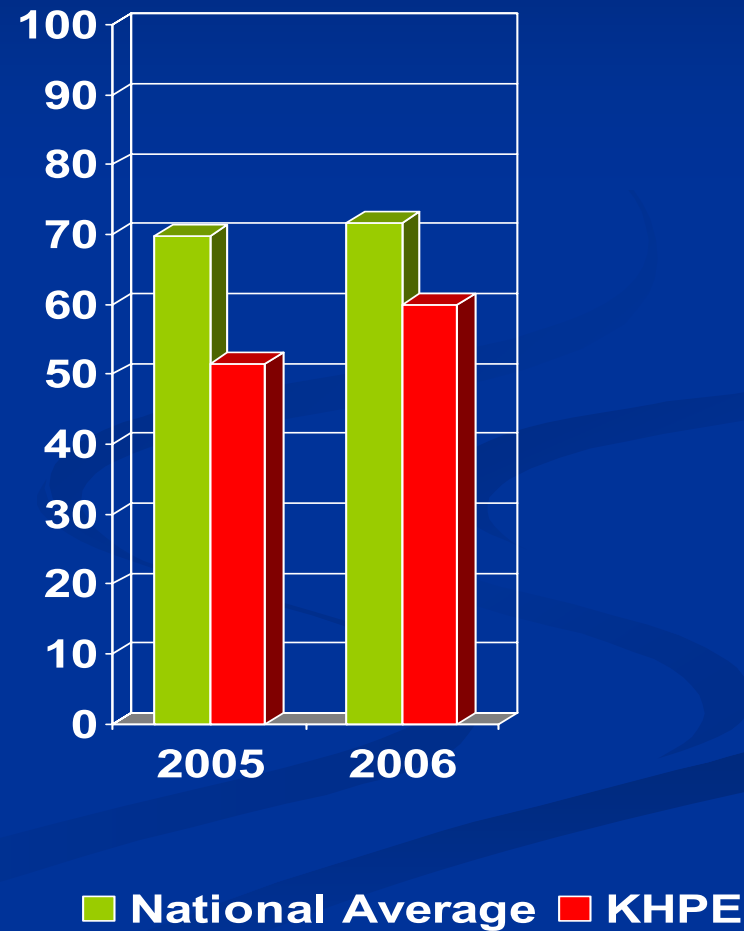


Impact of the Study



- NCQA accepted the research as a basis to modify HEDIS measures
 - Initiated a 6 month persistence measure after AMI
 - Retiring the measure of initiation
- Plans have implemented initiatives to improve adherence and the trend is upward nationally

% on β -Blockers at 6 months:



Qualitative Research Findings: Barriers to Beta Blocker Adherence

Purpose & Methodology



Purpose

- To understand perceptions and attitudes towards beta blocker medications
- To understand why some patients discontinue beta blocker therapy and the role doctors play
- To gauge responses to messages encouraging life-long use of beta blockers

Methodology

- In-depth physician interviews
 - Cardiologists
 - Family practitioners
 - Internists
- Post-MI patient focus groups; participants previously prescribed beta blockers but no longer taking them
 - Women, ages 40 and over
 - Men, ages 40-64
 - Men, ages 65-75

Research Highlights



Physicians:

- Acknowledged importance of long-term beta blocker use post-MI
- Belief that side-effects can be managed and do not significantly affect adherence
- Belief that patient education about medicine is delivered by other healthcare providers

Patients:

- Low awareness of beta blockers and their benefits
- Lack of understanding that beta blockers are intended for long-term use
- Concerns about medication interactions
- Resistance to taking prescription medication “for life”
- Lifestyle changes are perceived as having higher impact than medication
- Rarely discuss these concerns or beliefs with their doctor
- Demographic differences in preferred messages

Physician Perspectives



- Physicians believe that patient education about medicine is delivered by other healthcare providers
 - *“I don’t bring up the side effects. That is already covered by the cardiologist when the medication is first prescribed.”*
(PCP)
 - *“I don’t tell them much. The pharmacy gives them a big list of side effects and the patient has seen that by the time they come into my office.”* (Cardiologist)

Patient Perspectives:



Low Awareness of β -Blockers and Benefits

- Generally low level of knowledge among patients about what beta blockers do
 - *“Beta blocker was just a medical term -- didn’t mean anything to me.”*
 - *“If you are taking aspirin, why would you take a beta blocker?”*
- Patients do not know why a doctor prescribes them
 - *“My doctor just gave me the pills, I took them. He didn’t tell me what they did.”*
- Yet, patients understand the benefits of aspirin
 - *“I think aspirin is more important than even (brand name statin) because it helps prevent a second heart attack.”*

Patient Perspectives:

Concerns About Medication Interaction

- Many believe that taking multiple medications is unhealthy and want to limit the number of drugs taken
 - *“I don’t think a lot of medicine is necessarily the right way to go. I think you could become dependent upon it and that’s what I don’t like.”*
 - *“I got a pile of them [drugs] right now and it burns me up. I don’t think I should be taking all those.”*
- Patients are concerned about the effects of each drug and drug interactions
 - *“You’ve got so many things, you don’t know what they do.”*
 - *“I could never get those medications together to find out if there is any interference there as to whether this is really good. I don’t have enough real information that I am certain is the right information.”*
 - *“More medications equal more side effects.”*

Patient Perspectives:

Resistance to Taking Medication Indefinitely

- Patients worry about being tied to medication for life
 - *“I don’t want to be dependent on that.”*
 - *“At 50, I don’t want to be on this medication forever.”*
- Patients specifically resist the idea of being on certain prescription medications for the rest of their lives
 - *“Beta blockers are scary to me. Aspirin seems so innocent. Beta blocker does something complicated to your brain. It was never explained to me.”*
- Many believe that they have recovered and no longer need beta blockers
 - *“Many people feel great afterward and get the impression they don’t need it.”*
 - *“My heart has recovered. Through exercise it has come back a lot more.”*
 - *“Just like an antibiotic, people take it until they feel better.”*

Patient Perspectives:

Lifestyle Change vs. Medication Adherence

- Many patients feel that leading a healthy lifestyle makes medication unnecessary
 - *“I don’t think doctors think you are going to do all the things you are supposed to. So these medications are supposed to supplement.”*
- Patients focus on lifestyle changes (diet, physical activity, stress reduction, smoking cessation), with medication being a secondary concern
 - *“You can do a whole lot with diet and exercise and eating fruits and vegetables.”*

Patient Perspectives: Other Factors Influencing Adherence

- Side effects are reported by a small minority of patients; generally, they are not a barrier to adherence
- Patients look to doctors to discuss the issues of side effects with them
- Patients often don't know enough about beta blockers to ask meaningful questions
 - *"I think the doctors expect us to know a little bit more than we know."*
 - *"I just know the doctor says to take it."*
- Beta blocker cost did not affect overall adherence, but patients do worry about the total cost of their medication regimen

Patient Perspectives:



Other Factors Influencing Adherence

- Support network (spouse, friends, family) plays an important, beneficial role in improving adherence
 - Patients with a partner identify the importance of functional support
 - Patients without a partner or functional support express more of a challenge in taking medications regularly and sticking to a regimen

Encouraging Patients to Stay on β -Blockers



■ Compelling Messages

- *“40% [reduction of risk of another heart attack and death] is a significant figure. I think that anybody would be a little foolhardy not to consider it very strongly based on 40%.”*
- *“Anything that lessens the chance, that means longevity. After a certain age, you want to live a little longer.”*

■ I'd probably start taking a beta blocker if...

- *“The doctor said I should take them.”*
- *“I knew exactly what the beta blocker would do for me.”*
- *“The evidence became overwhelming by long-term test.”*
- *“I had another heart attack.”*

Implications



- Education about beta blockers, their mechanism of action and long-term efficacy provides knowledge necessary to help the patients commit to a long-term course of treatment
 - Doctor-patient communication is key
 - Knowledge about the use and effectiveness of beta blockers enables patients to ask relevant questions of their providers
- Educating patients about how to best manage multiple medications helps improve compliance with medical recommendations
 - Information should be presented in a simple and easy-to-understand format
- Patients without a partner or functional support network may need additional attention and reinforcement of the importance of adherence

A Provider Team Can Help: Suggestions



- Educate the patient about their **complete** medication regimen, including beta blockers
 - Provide information on the role of each medication
 - Explain that a healthy lifestyle is not a substitute for medication -- rather, the medication is **an integral part of a healthy lifestyle**
 - Aim to decrease regimen complexity
- Explain beta blockers' mechanism of action and long-term efficacy
 - **“Beta blockers can reduce the risk of another heart attack and death by up to 40%”** appears to be a highly-motivational message
 - The secondary **prevention** message is important for improving adherence -- explain why the patients should not stop taking beta blockers when they feel better
- Reinforce message that beta blockers are intended for long-term use; benefits only last as long as you take them

A Provider Team Can Help: Suggestions



- Combine education with behavioral techniques
 - “What do you already know?”
 - “What do you think you’ll have problems with?”
 - “What can we try?”
- Elicit feedback about patient’s experience with the treatment regimen
 - “What is most troubling about the treatment?”
- Acknowledge role of patient’s support system
 - “Who will you talk to about today’s visit, and what will you tell them?”
 - If a patient lacks a support system, consider additional opportunities for follow-up
- Provide simple, written materials to reinforce verbal information

Greater Philadelphia Adherence Coalition (GPAC): A Community- based Initiative

- **MISSION:** A Coalition of healthcare providers and payers dedicated to improving medication adherence through various patient and provider interventions in Southeastern Pennsylvania
- Composed of several health plans, Philadelphia Health Dept, pharmacy, physicians, academic medical centers, university, pharmaceutical companies, various local organizations
- Organized a faith-based awareness campaign in June 2007, involving 8 churches in Philadelphia

Thank you!

Questions...