Medication Adherence & Smoking Cessation

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OBJECTIVES

Utilize shared decision making techniques to enhance patients adherence to asthma medications.

Tailor smoking cessation advice and interventions to patients’ readiness to change using brief negotiation and other techniques.
Patient’s behavior coincides with the medical prescribed health advise.
Non-judgmental and is preferred over the term “non-compliant”
Approximately 50% (30-70%): of patients with chronic disease fail to take pharmacologic therapy as prescribed.
Medication Adherence

Patient not aware of the extent of their dosage omissions.

Providers are unlikely to accurately identify adherence problems.

Limited number of studies which adequately test interventions designed to prevent or to remediate adherence problems.
Medication Adherence: The “BIG WHY”

Unnecessary disease complications
Disease progression
Premature death
Reduced functional ability and quality of life
Substantial cost to the health care system
300 billion/yearly.
Excellence in medical treatment is worthless if the patient doesn’t take the medicine.

Adherence is closely linked to clinician communication and patient education.

Most clinicians believe they are good communicators, but most patients feel clinician communication and education is inadequate.
Barriers To Effective Communications

Studies show that patients often:

Feel they are wasting the clinician’s valuable time
Omit details they deem unimportant
Are embarrassed to mention things they think will make them look bad

Don’t understand medical terms
May believe the clinician has not really listened and therefore doesn’t have the information needed to make a good treatment decision
Implications

Studies consistently show that less than 50% of patients adhere to daily medication regimens. Clinicians cannot predict better than chance which patients will be adherent with medications. Therefore, all patients need to be educated to ensure adherence. Communicating well and providing education are as important as prescribing the right medicine.
Physician Asthma Care Education

The PACE program is a two-part interactive, multi-media educational seminar to improve physician awareness, ability, and use of communication and therapeutic techniques for reducing the effects of asthma on children and their families. It also provides instruction on how to document, code, and improve asthma counseling reimbursement. PACE has been found in two rigorous studies to be highly effective.

Physicians who participated in PACE spent no more time with their patients than other physicians but were more likely to:

- inquire about patients’ concerns
- encourage physical activity
- set goals for treatment.

Patients of participating physicians had:

- fewer days affected by asthma symptoms
- fewer emergency room visits

You can train yourself to be a PACE program leader and facilitator and obtain all program materials on the following pages.
PACE Program AIM:

To provide a theoretical framework - a way to think about clinician-patient communication

To demonstrate strategies that clinicians can use to improve communication and help patients be responsive to recommendations
Efficacy Trial (MD-Asthma Study)

**Design:** Controlled trial

**Intervention:** Asthma education seminar

**Participants:** 83 pediatricians

**Evaluation:** Asthma care of 637 patients (2 year follow-up)

Pediatrics; 1998; 101; 831-836

Clark, Noreen et al.
Results from Parents

Parents reported that the intervention pediatrician

- was more reassuring
- asked more about asthma management at home
- was more likely to set a goal for child to be active

Parents reported increased use of written plans
Results from Pediatricians

Compared with controls, physicians who received the intervention showed:

- Increased use of written plans
- Increased use of inhaled anti-inflammatory therapy
- More attention to patient fears
- No additional time for patient visit
Patient Outcomes

The study allowed separation of the effects of drug therapy from the effects of good communication and patient education.

Patients whose physicians provided education plus inhaled corticosteroids did better than those who received corticosteroids alone:

- Reduced emergency room visits
- Reduced hospitalizations
- Reduced days with symptoms
### Effectiveness Trial (PACE Study)

- **Design:** Controlled trial  
- **Intervention:** Asthma education seminar  
- **Participants:** 101 primary care providers  
- **Evaluation:** Asthma care of 870 patients (1 year follow-up)

Pediatrics 2006; 117; 2149-2157  
Cabana, Michael et al...
Results

Pediatricians were more confident in
- developing short term goals
- reviewing long term plans

Parents reported that the intervention pediatrician
- tried to find out about parents’ biggest concerns
- was more likely to encourage child to be active
- was more likely ask if child was meeting goals

p<0.05 for all analyses
Patient Outcomes

Patients whose physicians participated in the PACE seminar had

- Reduced emergency room visits
- Reduced days of daytime symptoms in the Fall
- Reduced days with decreased activity due to asthma (Spring, Summer, Winter, & Fall)

No impact on average patient visit time
Good communication between patient and clinician helps identify patient concerns that may block adherence, makes patient teaching more effective and promotes patient self-confidence to follow the treatment plan.
Health Belief Model

These beliefs influence willingness to follow preventive or therapeutic recommendations

- I am **susceptible** to this health problem
- The threat to my health is **serious**
- The **benefits** of the recommended action outweigh the costs
- I am **confident** that I can carry out the recommended actions successfully
Some families resist accepting the diagnosis because they believe that:

Because an older relative was crippled by asthma, their child will also be crippled

Asthma is psychologically caused or feigned by the child

Resisting the diagnosis reduces the likelihood that the family will follow the treatment plan
Beliefs About Seriousness

If the family thinks asthma is not serious, they are less likely to follow the treatment plan.

If the family overestimates the seriousness of asthma, they may follow the plan, but prevent the child from taking part in normal physical activities.
Beliefs About Benefits and Costs

The benefits of therapy, obvious to the clinician, are often unclear to patients or irrelevant to their personal goals.

Perceived costs of therapy include:

- Financial burden of care
- Fear that medicines will harm the child
- Regimen seen as time-consuming and hard to carry out
Fears About Asthma Medicines

39% Believe medicines are addictive

36% Believe medicines are not safe to take over a long period

58% Believe regular use will reduce effectiveness
Beliefs About Ability to Carry Out Recommendations

Research in psychology shows that when you are confident you can do something successfully:

- You do it more often
- You are more persistent in the face of difficulty.

Many families lack confidence that they can manage an asthma attack at home.
Strategies

- Non-verbal attentiveness
- Addressing immediate concerns
- Reassuring messages

GOAL/PURPOSE

Relaxing and reassuring patients so they pay attention to what is being said.
 Strategies

Interactive conversation
Eliciting underlying fears

GOAL/PURPOSE

*Improving the exchange of ideas and feelings and gathering information needed for diagnosis and treatment decisions*
Strategies

Tailoring messages
Planning for decision making
Goal setting

GOAL/PURPOSE

*Preparing patients to carry out the treatment at home*
Strategies

Non-verbal encouragement
Verbal praise

GOAL/PURPOSE

Building self confidence needed to carry out the plan.
Good communication between patient and clinician helps identify patient concerns that may block adherence, makes patient teaching more effective and promotes patient self-confidence to follow the treatment plan.

Good communication and patient education can be efficiently and effectively accomplished in several standard primary care visits.
Shared Decision Making

Recruited poorly controlled asthmatics with poor adherence to asthma regimen
Compared SDM, usual care and clinician directed care (CDM)
Non-physician clinicians & patients negotiated treatment regimen accommodating patient goals & preferences.

Published ahead of print on December 17, 2009
Shared Decision Making

SDM Patients significantly more likely to adhere to ICS & other controller therapy
Significantly higher average daily dose of asthma controller medication
Improved pattern of regimen choices
Results seen over 2 years of follow-up
Shared Decision Making

SDM significantly better
- Asthma-related quality of life
- Asthma health care utilization
- Use of rescue medication
- Lung function
- Likelihood of well-controlled asthma

CDM model produced better clinical outcomes compared with usual care
Smoking Cessation
Smoking Cessation:
Cigarette Smoking: Chronic often relapsing disease

Leading cause of preventable morbidity and premature mortality in US
Active cigarette smoking cause more than 420,00 deaths per year.
Smoking causes cancer, heart disease & COPD
Estimated~ 20% of US population smokes

Smoking Cessation,
Chest 2010; 137; 428-435
Chandler, Michael et al.
85% of smokers are nicotine addicted.

At least as addictive as cocaine, amphetamines or opiates.

Nicotinic acetylcholine receptors; increases dopamine release.
Withdrawal Syndrome

Develops over 3 days; dysphoria, insomnia, irritability, anxiety, diminished concentration, restlessness, increased appetite, decreased heart rate and weight gain.

Symptoms peak after a week & then gradually decrease over time.
Prevalence of smoking in Kaiser regions varies from 10-20%.

Estimated medical cost attributed to these members surpass $700 million dollars annually.

Overall medical costs in the US are about $50 billion per year and costs associated with lost productivity & wage for disability is $47 billion per year.
Nonpharmacologic Intervention

Public Health measures; education, taxes and advertisement restrictions.
Individual support; education, motivational and behavioral interventions.
More liable to quit during acute episode of inpatient or outpatient illness.
Pharmacotherapy

Nicotine replacement therapy NRT; most widely used agents & many forms.

Buproprion; blocks the reuptake of dopamine, serotonin and norepinephrine.

(Wellbutrin)

Varenicline; leaves & seeds of the golden rain tree (Cytisus laburnum), Cytisine is a partial agonist-antagonist at nicotinic receptor; facilitates dopamine release

(Chantix)
Other Pharmacotherapy

Nortriptyline; selective norepinephrine reuptake inhibitor.

Clonidine; alpha-2-adrenergic agonist

Combination therapy; NRT with bupropion
Emerging Therapies

Rimonabant; a cannabinoid receptor antagonist.

Nicotine vaccine; stimulates the production of antibodies against nicotine.
Kaiser Permanente’s Center for Health Research: Quitline & free patch initiative

Cost effectiveness of the Oregon quitline “free patch initiative”

Tobacco Control, BMJ 2007;16; i47-i52
Fellows, Jeffery L et al.

Oregon Tobacco Quitline: 30 minute telephone counseling and two-week supply of NRT
Conclusions:

Number of callers nearly doubled 6428 to 13,646 annually
Quit rate nearly double from 8.2% to 15.7%
Number of quitters quadrupled from 527 to 2142
Cost per quit fell more than $2600 (from $3778 to $1050).
Effectiveness & cost effectiveness of telephone counseling and nicotine patch in state tobacco quitline

Tobacco Control, BMJ 2007;16; i53-i59
Hollis, Jack F. et al

4,600 smokers- largest randomized trial
Improved effectiveness with intensive counseling plus NRT.
Conclusions:

Counselors trained in cessation support techniques and motivational interviewing discuss quit plans and motivation, setting quit date, relapse prevention and community resources.
Effectiveness of the 5As Tobacco Cessation Treatments in None HMOs

National clinical guidelines recommends an intervention for tobacco use known as the 5-As.

Cessation was twice as likely when smokers attended classes/received counseling, or used pharmacotherapies.

Journal of General Internal Medicine, 2009;24; 149-154
Quinn, Virginia P. et al.
<table>
<thead>
<tr>
<th>The 5 A’s: Smoking Cessation Strategy for Routine Practice: Counseling in the office setting</th>
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<tbody>
<tr>
<td><strong>Ask</strong></td>
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<td><strong>Advise</strong></td>
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<td><strong>Assess</strong></td>
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<td><strong>Assist</strong></td>
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<td><strong>Arrange</strong></td>
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## 5 R’s: Abbreviated Smoking Cessation Counseling: Unmotivated or Relapse smokers

<table>
<thead>
<tr>
<th>5 R’s</th>
<th>Description</th>
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<tr>
<td><strong>Relevance</strong></td>
<td>Encourage the patient to indicate why quitting is personally relevant</td>
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<tr>
<td><strong>Risks</strong></td>
<td>Ask the patient to identify potential negative consequences of tobacco use</td>
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<tr>
<td><strong>Rewards</strong></td>
<td>Ask the patient to identify potential benefits of stopping tobacco use</td>
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<tr>
<td><strong>Roadblocks</strong></td>
<td>Ask the patient to identify barriers to quitting</td>
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<tr>
<td><strong>Repetition</strong></td>
<td>Apply 5 R’s whenever interact with unmotivated or relapsed smokers</td>
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Counseling in the office setting: FRAMES

Feedback about personal risk.
Responsibility of patient.
Advice to change.
Menu of strategies.
Empathetic style.
Promote self efficacy.
Helpful Smoking Cessation Web Sites and National Quit Line

www.surgeongeneral.gov/tobacco
- Clinical and consumer smoking cessation materials

www.ahrq.gov/clinic/tobacco/tobaqrg.htm
- Treating Tobacco Use and Dependence: 2008 Update, Quick Reference Guide for Clinicians

www.ahrq.gov/path/tobacco.htm#Clinic
- Treating Tobacco Use and Dependence: 2008 Update, 276-page comprehensive guideline

www.tobacco.org
- Tobacco cessation policy making with extensive library of links

www.smokefree.gov
- Quit schedules, phone or instant message counseling, and ports to smoking cessation trials

1-800-QUIT-NOW National quit line for the United States
Communication: Physician & Patient for Behavioral Changes

1982 Motivational Interviewing; Dr William Miller, PhD. Addictive medicine

Stages and Processes of Self-Change of Smoking: Toward An Integrative Model of Change

1985 Shared Decision Making; Greenfield, S
Annuals of Internal Medicine 1985;102; 520-528
Expanding patient involvement in care and outcomes.

1994 Brief Negotiation; Stephen Rollnick Ph D
Motivation Interviewing:

A quiet curiosity about the motivations of the patient, and an ability to use listening to invite reflection and consider the personal value of the behavioral change.

1982 Motivational Interviewing; Dr William Miller, PhD. Addictive medicine
Adapted from Prochaska & DiClemente’s Transtheoretical Model of Behavior Change, 1986
“Shared medical decision making is a process in which the physician shares with the patient all relevant risk and benefit information on all treatment alternatives and the patient shares with the physician all relevant personal information that might make one treatment or side effect more or less tolerable than others. Then both parties use this information to come to a mutual medical decision.”

Source: *American Journal of Law & Medicine, 2006*
“Using a guiding style is readily achievable and will depend on the highly skillful use of reflective listening”. Stephen Rollnick

Brief Negotiation is a collaborative, patient-centered counseling method for enhancing patient motivation to consider health behavior change in brief clinical encounters.
Physician-patient communication:

Pediatrics 1968; 42: 855-871
Korsch B et al
“Gaps in doctor-patient communication.”

1999 Permanente Journal article on the Four Habits.
Getting the Most out of the Clinical Encounter: The Four Habits Model; Richard M. Frankel, PhD; Terry Stein, MD

http://xnet.kp.org/permanentejournal/fall99pj/fall99pj.htm
### The Four Habits Model: Effective Communication

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<tr>
<th>Invest in the beginning:</th>
<th>Create rapport quickly</th>
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<tr>
<td></td>
<td>Elicit patient's concerns</td>
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<td>Plan the visit with the patient</td>
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<th>Elicit the patient's perspectives:</th>
<th>Ask for patient's ideas</th>
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<tr>
<td></td>
<td>Elicit specific requests</td>
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<td>Explore the impact on the patient's life</td>
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<th>Demonstrate empathy:</th>
<th>Be open to patient's emotions</th>
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<td>Make at least one empathic statement</td>
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<td>Convey empathy non-verbally</td>
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<td>Be aware of your own reactions</td>
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<th>Invest in the end:</th>
<th>Deliver diagnostic information</th>
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<tr>
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<td>Provide education</td>
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<td>Involve patient in making decisions</td>
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<td>Complete the visit</td>
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March 2001;

INSTITUTE OF MEDICINE

Shaping the Future for Health

CROSSING THE QUALITY CHASM:
A NEW HEALTH SYSTEM FOR THE 21ST CENTURY
Patient centeredness is becoming a widely used, but poorly understood, concept in medical practice. It may be most commonly understood for what it is not: technology centered, doctor centered, hospital centered, disease centered. Definitions of patient centred care seek to make the implicit in patient care explicit.
Care that is truly patient-centered considers patients’ cultural traditions, their personal preferences and values, their family situations, and their lifestyles. It makes the patient and their loved ones an integral part of the care team who collaborate with health care professionals in making clinical decisions. Patient-centered care puts responsibility for important aspects of self-care and monitoring in patients’ hands — along with the tools and support they need to carry out that responsibility. Patient-centered care ensures that transitions between providers, departments, and health care settings are respectful, coordinated, and efficient. When care is patient centered, unneeded and unwanted services can be reduced.
Summary: responsibility for important aspects of self-care and monitoring in patients’ hands

Strengthening the physician-patient relationship through communication is the key to success.
Assess patient’s motivation to treatment adherence or behavioral changes.
Assess patient’s motivation to take prescribed medications.
Identify and address potential barriers to treatment adherence or behavioral changes.
Summary:

“PONO”
“Do what is right”

MAHALO!!
Thank You