Are Our Asthma Action Plans Giving People What They Need to Care for Themselves and Control Asthma?

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IMPACT Asthma Kids ©
• Interactive
• Multimedia
• Program for
• Asthma
• Control &
• Tracking

Self Regulation Theory

VIGILANCE

AGENCY

UPDATE

ACT/REACT

DECLARE

TEST

SEE

LOOK

EXIT
ACE© Demo

- Media clip from a standardized 98960 program with Al Keith (Asthma Blues)

- Look for the Self-regulation model in the “offense and defense” models in the introduction

44 Lessons & a Triggers Game (demo “Your Nose”)

RCCT Design
- 228 children, 6-18
- A parent present
- Specialty care for all
- Caring for Kids info
- 3 visits, one year
- Knowledge gain
- Self report, Sx, Rx, days missed, ER, etc

http://www.pediatrics.org/cgi/content/abstract/111/3/503
IMPACT RCCT Results

• Significant between group differences
  - Greater knowledge gain, children and caregivers
  - Greater decrease days of asthma symptoms
  - Greater reduction in ER visits (savings of $907 vs $291)
  - Markedly lower ICS dose (434 vs 754 mcg beclo equiv.)

IMPACT RCCT Results

• Significant within group differences (IMPACT)
  - Decreased school days missed (5 days, $195 funding)
  - Decreased days of quick relief medicine use (64/yr)
  - Decreased nights of disturbed sleep (50/yr)
  - Decreased days of limited activity (39/yr)

The Real Results

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A four component approach is effective for controlling asthma – Should AAPs reflect this? Have we “interpreted” this into self-care?

1) Measures of Assessment & Monitoring
2) Education for a Partnership in Care
3) Control of Environmental Factors and Comorbid Conditions that Affect Asthma
4) Medications

(EPR3, p. 35)
Asthma Control Monitor©
Patient Window?

• How well am I breathing today?
• Do I demonstrate good technique for inhaling my medications?
• Have I picked up enough ICS in the last year, 90 days to consume the recommended amount?
• How’s my weight, diet and activity level?
• Am I managing other related health related conditions well?
• Am I doing what I need to do to maintain a patent nasal airway?
• What are the upcoming seasonal risks?

RAMP PDF form Action Plans

• Activity - mark the elements of this nice plan to indicate relevance to self-care

www.rampasthma.org

Recent Clinical Note - Asthma

• Activity – mark the elements of this note that define relevant self-care behaviors

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Review the Asthma Plan

- Activity – mark the elements of this AAP that aim to address self-care behavior

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Inhaled Corticosteroid (ICS) Star Chart

Key Clinical Message is:
Use Objective Measures of Airflow

Spirometric parameters improve assessment of severity, control exacerbations and response to therapy (FEV1, FEV1/FVC ratio and PEF). Symptom reports are also useful, but under-estimate the degree of airway obstruction in many individuals. (EPR3, p. 43-45)
Assessment Criteria (airflow)

- **Clinic**
  - **Severity**: FEV1/FVC*, FEV1
  - **Control**: FEV1/FVC*, FEV1
  - **Exacerbations**: FEV1*, PEF

- Home, control/exacerbations, PEF (or FEV1*)

* preferred (more sensitive)

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Pop Quiz (matching)

- 1) Usually normal with asthma _______
- 2) Best exacerbation parameter _______
- 3) Best for assessing control _______
- 4) Best for home monitoring _______

- a) FEV1, b) FVC, c) FEV1/FVC, d) PEF

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Sensitivity of FEV1 and PEF at Different Airflow Obstruction, Ages 12-19
Percent Predicted FEV1

10 yr old Caucasian female; 146 cm
• Personal best FEV1 = 2.63
• Today's FEV1 = 2.0
• Today's FEV1/baseline FEV1 (2.0 ÷ 2.63 = 0.76 x 100 = 76% of personal best
• Percent predicted FEV1 was only 2.2. Use of a reference chart WOULD NOT have accurately assessed his airflow obstruction
• (2.0/2.2=0.90x100=90% of predicted)

Value of the Ratio

• 16 yr Caucasian male sees specialist
• Height 185 cm; weight 100.1 kg
• History obtained- no complaints, no impairment taking once daily Asmanex
• Spirometry: FEV1 95%; FEV1/FVC=68
• This is severe airflow obstruction, he is at risk (hobby extreme outback camping)

EPR3 Specifies IFR and IFT

• IFR= inspiratory flow rate
• IFT= inspiratory flow time
• MDI – 30 LPM or 3-5 seconds (p. 250)
• DPI – 60 LPM or 2-3 seconds (p. 249)

How do you measure IFR & IFT?
Estimating Target Time
MDI=FEV1x2 sec, DPI=FEV1x1 sec

THE END