Improving adherence through combined strategy

Workshop on Prevention, Screening and Early-Diagnosis - AHAIP

June 20th 21st, 2011
Definition:
“the extent to which a person’s behaviour – taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider”*

1. Some barriers to adherence to therapy are more common in older patients and warrant particular attention in clinical management.
2. Although patients of any age may forget to take their medication, for some older patients memory difficulties may be exacerbated by other medications or early dementia.
3. In addition, older patients are often receiving treatment for several other chronic health conditions simultaneously.

Why Adherence?

- Adherence to long-term therapy for chronic illnesses in developed countries averages 50% (WHO 2003 /2007). The poor are disproportionately affected;
- Poor adherence to long-term therapies severely compromises the effectiveness of treatment;
- Interventions aimed at improving adherence would provide a significant positive return on investment through primary prevention (of risk factors) and secondary prevention of adverse health outcomes;
- Improving adherence also enhances patients’ safety. Most of the care needed for chronic conditions in old patients is based on patient self-management (usually requiring complex multi-therapies);
- Adherence is an important modifier of health system effectiveness (population health outcomes predicted by treatment efficacy data cannot be achieved unless adherence rates are used to inform planning and project evaluation);
- Studies consistently find significant cost-savings and increases in the effectiveness of health interventions that are attributable to low-cost interventions for improving adherence;
- The backbone of the concordance model is the patient as a decision maker and a cornerstone is professional empathy;
- A multidisciplinary approach towards adherence is needed.
From Adherence to Concordance

Workshop on prevention, screening and early diagnosis

Brussels June 20 - 21 2011

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What hat....

University professor

Jan Raaijmakers
Private person

Pharma industry
Attention to the role of adherence is not new

“Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments”

Haynes RB. Interventions for helping patients to follow prescriptions for medications. Cochrane Database of Systematic Reviews, 2001.
And it is an almost universal problem….

Different categories of drugs and Adherence

Percentage of patients who stop therapy within a year

- Cholesterol lowering drugs: 33%
- Antidepressive drugs: 76%
- Antihypertensives: 77%
- Inhalation corticosteroids: 59%
- Glaucoma drugs: 76%
- Drugs for osteoporosis: 77%
- Anti Parkinson drugs: 75%
- Antipsychotics: 74%
- Thrombocytaggregation inhibitors: 68%

HERINGS ET AL. ON CHRONIC PHARMACOTHERAPY. REPORT 2002
Let’s take obstructive lung diseases as an example
With the elderly patient in the centre....
Eldey: Severe asthma and COPD

- Difficult to treat
- Available medication not as efficacious as in regular asthma
  - Adherence even more important
- Bad adherence $\rightarrow$ exacerbations $\rightarrow$ hospitalisation
- Hospitalisations $\rightarrow$ high costs and increased mortality
Persistence with inhaled corticosteroid therapy in daily practice

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\textbf{Conclusion:} The persistence rate of ICS is poor. Preventing early treatment discontinuation may be important to ensure maximal benefit from ICS treatment.
Not all patients are equal....

Results: Approximately 50% of the patients used inhaled corticosteroids (ICS) for less than 200 days, while 18% continued treatment for one year. One-year persistence rates increased to 40% in patients with a history of multiple respiratory disease related drugs.
Research needed

- Why do patients stop?
- What factors determine irregular use, and are there predictors?
Thesis project: Tanja Menckeberg
Thesis objectives:

- Detailed analysis of ICS use (patterns)
- Factors involved: the role of the patient
- Test instruments
No follow-up

1991

1992

1993

1994

1995

1996

1997

1998

1999

2000

Transition states for continuous use

No use/follow-up

87%

88%

89%

90%

84%

87%
Beliefs about medicines predict refill adherence to inhaled corticosteroids.

Menckeberg TT, Bouvy ML, Bracke M, Kaptein AA, Leufkens HG, Raaijmakers JA, Horne R.

CONCLUSIONS:
Patients' beliefs about ICS correlate not only with adherence by self-report but also with a more objective measure of medication adherence calculated by pharmacy dispensing records. The necessity-concerns constructs offer a potentially useful framework to help clinicians elicit key treatment beliefs influencing adherence to ICS.
Patient perception

- Beliefs about Medicines (BMQ)
  - Necessity
  - Concerns
Four quadrants....

Necessity
Four quadrants....

Necessity

Concern
Four quadrants...
Four quadrants....

- Necessity
- Concern
- Accepting
- Ambivalent
- Indifferent
- Sceptical

- 86% low
- 56% high
- 78% high
- 53% low
Monitoring/measuring systems
The steps involved....

- Patient with problem
- Physician diagnosis
- Physician prescription
- Pharmacist dispensing
- Patient use
The steps involved....

- Patient with problem
- Physician diagnosis
- Physician prescription → patient files
- Pharmacist dispensing → dispensing records
- Patient use → electronic monitoring, self report
Data(base) sources

- Prescription data (LINH, GPRD)
- Pharmacy dispensing data (SFK, Pharmo)
- Reimbursement data (GIP databank, Kaiser Permanente)
Self reporting

- MARS
- Moriskey
Electronic measurements of actual use
Good adherence
Bad adherence

CALENDAR PLOT

June 1998

July 1998

August 1998

September 1998

CHRONOLOGY
Final considerations
## Reasons for discontinuation ICS

- No symptoms experienced anymore: 45%
- Only using when necessary: 14.3%
- ICS was not effective: 3.4%
- Side effects: 1.7%
- Other: 8.4%
- No answer provided: 27.3%
Conclusions

• Adherence very important in the treatment of obstructive lung diseases
• Patient should be central (concordance)
• Role of the health care practitioners essential
• Consider:
  – Long-term use; medication patterns
  – Reasons for non-adherence
  – Patient beliefs
Hurdles

- Awareness HCP’s
- Time available HCP’s
- Availability data/ IT-infrastructure
- Awareness patient
Role of the pharmacist

Medication use and disease control of asthmatic patients in Flanders: A cross-sectional community pharmacy study

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Respiratory Medicine (2006) 100, 1407–1414
.. showed that the intervention had significantly increased the ACT score after 6 months compared with usual care. The intervention also reduced, for the complete study group, reliever medication use and the frequency of night-time awakenings due to asthma. Inhalation technique and adherence to controller medication were significantly better in the intervention group. In conclusion, pragmatic community pharmacy-based programmes can significantly improve therapeutic outcomes in adult asthma patients.

Approach

- Education
- Communication
  - HCP’s internally (physician & pharmacist)
  - HCP’s with patient (organisation)
- Extra time to communicate
- Access to data
- IT infrastructure
Project to build on research

- Create consortium
- Educate participants
- Create protocol
- Realize necessary infrastructure
- Execute and measure outcomes
- Broad implementation (guidelines)
Possible study plan

1. Existing ICS users

- use dispensing data to identify non-adherent patients
- check diagnosis and need for continuous treatment
- invite these patients for testing and education
- monitor: adherence, Q.O.L., use resources

*note: use “usual care patients” as control*
Possible study plan

2. New patients
   - Start with intensive education and testing of well diagnosed patients
   - Monitor using dispensing data
   - Measure outcomes regularly

note: use “usual care patients ” as control
Universal approach, different diseases

- In principle same design, same infrastructure
- Disease specific elements
- Role patient organisations
the French compliance model