A Disease Management Program in France: Lessons from the RESALIS Experiment 18 months before and 12 months after public health interventions

INTRODUCTION: Asthma is a chronic respiratory disorder which affects all ages and for which we are currently seeing an increase in morbidity and mortality. This deteriorating scenario is explained largely by poor understanding about the disease and the use of inappropriate treatments. Poor compliance with treatment is still a major problem. Management via co-ordinated care networks should therefore enable patient’s state of health to be improved and the costs of managing the disorder to be reduced.

OBJECTIVES: TO DEMONSTRATE that management of patients in the context of a Co-ordinated Care Network® allows:
- MEASUREMENT of the effectiveness of treatments in everyday practice
- EVALUATION of the impact of a health education program
- ESTIMATION of the economic benefits of improved management

METHODS: SIX HEALTH PROGRAMS
- Computerisation of the consulting clinics
- Exchange of medical and paramedical records
- Introduction of medical guidelines
- Medical training for doctors
- Patient education
- Evaluation programme Continuous recording practices onto a specific database

STUDY DESIGN
The study design should interfere as little as possible with daily practices. The best suited model is a pragmatic quasi-experimental before-after study with a control group.

INCLUSION CRITERIA
- Adults and children over 10 years old
- Asthmatic patients regardless of grade
- Patients who have given their informed consent and are prepared to attend the educational sessions offered.
- Patients who reside in the region of Eure and who do not intend to leave the region within a period of 18 months

RESULTS:

PATIENT INCLUSION AND FOLLOW UP
- Before Phase: 43 participating doctors; 34 doctors download information; 338 patients included; 313 eligible patients; 119 patients only had 1 inclusion visit before intervention; 192 patients had at least 2 consultations before intervention
- After Phase: 115 patients followed up for 12 months after intervention

CHANGE IN ASThma CONTROL RATE
"BEFORE-AFTER" INTERVENTION

52.6% of patients controlled (before phase) vs 67.7% (after phase), i.e. a gain in patients controlled per quarter of 15.08%.

QUALITY OF LIFE MEASURE
- FEVI: < 80% 
- Night-time symptoms > 6/7 nights
- Day-time symptoms > 6/7 days
- Exacerbations > 1 episode during the consult + 1 episode occurring since the last consult
- Night-time symptoms: > 1 night/week
- Loss of work: 1 day/year

THRESHOLDS FOR NON-CONTROL OF ASTHMA
The definition of control is based on the 6 criteria and thresholds from the Canadian asthma consensus report

STATISTICAL ANALYSIS
- Efficacy: 1) Mean control rate per patient per quarter. Wilcoxon paired test. 2) Median time before non-control of Logrank and Cox test (independent groups)
- Cost: Mean cost per patient per quarter of follow up. Wilcoxon paired test
- Quality of life: Median scores per dimension per patient. Wilcoxon paired test

MEAN QUARTERLY COST OF FOLLOW UP (€2001)

COMPARISON OF QUARTERLY COSTS "BEFORE-AFTER" (€2001)

INCREMENTAL COST EFFECTIVENESS RATIO

CONCLUSION: Proportion of asthmatic patients controlled over the 1 year period before the intervention was equal to 52.6% of the patients followed. After the intervention the control rate reached 67.7%. The incremental effectiveness is equal to 15%. After intervention the standard quarterly cost were lower for both groups control and non control: respectively 118.9 € vs 152.7 € and 359.9 € vs 264.8 €. The overall rate of quarterly savings after intervention compared to the situation without intervention is equal to 32.4% (172.1 € versus 255.2 €). This initiative is the first attempt to implement a disease management programme in France. This is a very promising and enriching experiment which open a new road for "pragmatic" evaluation of the management of asthma in primary care with "trickle" inclusions and follow-ups.