Results: This approach resulted in a significant enhancement of the quality of care criteria analyzed:

<table>
<thead>
<tr>
<th>Documented in the medical record</th>
<th>Before (n = 115)</th>
<th>After (n = 93)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent focus of the disease</td>
<td>79 (60%)</td>
<td>88 (75%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Presence of follow-up</td>
<td>32 (28%)</td>
<td>77 (83%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Baseline inhaler treatment</td>
<td>97 (83%)</td>
<td>64 (56%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>PEF before treatment</td>
<td>22 (19%)</td>
<td>82 (88%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>PEF after treatment</td>
<td>8 (7%)</td>
<td>77 (89%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Steroid therapy</td>
<td>56 (50%)</td>
<td>71 (76%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Follow-up after ED discharge</td>
<td>1900 (21%)</td>
<td>3504 (74%)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Discussion and Conclusion: Implementation of locally developed guidelines with the participation of all healthcare personal was time consuming but had a significant impact on the ED management of asthma patients. This program should be continued to even further increase the quality of patient care. The impact on clinical outcome is currently being assessed.

P1286
Under treatment in asthmatic outpatients with mild bronchial obstruction
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Under treatment is one of the reasons for symptoms, sleep disturbance and limitation of activities in asthmatics. Inhalated anti-inflammatory drugs, in particular steroids, are very effective in controlling asthma symptoms in patients of all ages and severity.

The aim of our study was to evaluate, in asthmatics with mild bronchial obstruction, the difference between the domiciliary treatments carried out by outpatients (Ops) and that prescribed by the specialists (Sp's) based on the severity of symptoms referred.

A retrospective of 112 consecutive Ops (51 males, 61 females; mean age; 29.1 years; range: 13-61) with % p FEV1 > 70 (mean: 98%, range: 70-112%) was performed.

The patients' history and disease severity score in the previous four weeks (DSS) were investigated and the therapy (level 0-4) used by the Ops and prescribed by the Sp's was compared.

The Spearman rank correlation was used for nonparametric data.

Only 6 out of 112 (5%) Ops did not report symptoms of asthma (DSS equal to 0) after domiciliary treatment.

We found a significant difference between the therapy used by Ops at home and that prescribed by the Sp's (median: home therapy = 0.5; Sp's = 2; p < 0.0001, Wilcoxon test), even if a correlation did exist between them (r = 0.39, p < 0.0001).

The total DSS was not associated with the therapy used by the Ops, unlike that of the Sp's (r = 0.24, p < 0.001).

We found a significant correlation between the domiciliary therapy and day symptoms only (r = 0.20, p < 0.03) and shortness of breath due to exertion (r = 0.19, p < 0.04); on the contrary there was significant correlation between Sp's therapy and day symptoms (r = 0.22, p < 0.01), shortness of breath due to exertion (r = 0.20, p < 0.03) and also night symptoms.

In conclusion, in asthmatics with mild bronchial obstruction: 1) the treatment used by the Ops at home is different from that prescribed by the Sp's and their treatment level is indicated by the severity of day symptoms and shortness of breath (r = 0.20, p < 0.03 and r = 0.22, p < 0.01, respectively); 2) the domiciliary therapy is not used regularly; therefore the night symptoms are probably still present.

P1287
Non-participation in early intervention with inhaled steroids in asthma and chronic obstructive pulmonary disease (COPD): The role of 'fear of steroids'.
Results of the 'DIMCA' study
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Established and validated questionnaires have been shown to be useful research tools with which to assess asthma morbidity (Juniper 1993), but they too consuming for routine clinical practice. We have used four questions that the doctor would usually ask in each consultation (covering night waking, reliever inhaler use, daytime wheezing and disruption of activities) to produce an 8 point score that requires no extra time from the clinician. We have assessed this short questionnaire score (Q score) with the Juniper morbidity score (total score and symptom score), with levels of PEF, and with the UK asthma guidelines treatment step (Q score). The Q score was 3 points lower in strategy B vs A (Cox regression: p < 0.05). Furthermore, individual standard deviations over the last 1.5 yr period for PEF%pred, morning PEF, PEF-variability and PEFonda were smaller in strategy B vs A (MANOVA: p < 0.05).

The treatment strategy aimed at reducing BHR on top of improving symptoms, FEV1 and PEF-variability leads to more effective control of asthma, resulting in fewer exacerbations and less variable airflow limitation. This implicates a role for monitoring AHR in the long-term management of asthma.

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P1288
The clinical control of asthma after adding airway hyperresponsiveness (AHR) to the politics of lower airway treatment. A two-year randomised trial.
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According to present guidelines (GINA), the level of anti-inflammatory treatment for asthma is solely based on symptoms and lung function. In a randomised parallel design we investigated whether a treatment strategy aimed at reducing AHR (strategy B) on top of improving symptoms, FEV1 and peak flow (PEF) variability (strategy A) leads to a more effective control of asthma in moderate asthmatics with mild to moderate asthmatics (18-50 yr; 23 newly detected; FEV1; median ± SD: 92 ± 15 %pred) visited the chest physician, every 3 months during 2 yrs. Prior to each visit, methacholine PC20 (baseline: geom: mean ± SD: 0.63 mg/ml ± 2.11 DD) was assessed and the subjects recorded asthma symptoms, %Aeromist usage and morning + evening PEF on a diary card, during 14 days. At each visit, in both strategies, controller medication with inhaled corticosteroids and/or prednisone (4 levels: no steroids, 400, 800, 1600 µg/day wk+2 wk prednisone) was adjusted according to a stepwise approach similar to GINA, and to which 4 corresponding classes of AHR were added. In 62% of all instances, AHR-class indicated the need for increased medication level, which was only applied in strategy B. Improvements in FEV1 and morning PEF (% personal best) were more pronounced in strategy B vs A (B: 5.0 %pred, 9.0% and A: 1.0% pred and 3.5 l/s, respectively; p < 0.05).

The treatment strategy aimed at reducing BHR on top of improving symptoms, FEV1 and PEF-variability leads to more effective control of asthma, resulting in fewer exacerbations and less variable airflow limitation. This implicates a role for monitoring AHR in the long-term management of asthma.

This abstract is funded by: The Netherlands Asthma Foundation

P1289
Use of a simple patient focussed asthma morbidity score
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Effects of patient education to the life quality in asthma patients: 3 years experience
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Acceptance and application of the International Asthma Report by most countries made asthma therapy more than a simple prescription. It may be expected that patient education in addition to drug treatment will improve the life quality and prognosis of patients. For this reason, we studied randomly selected 25 cases (group I) that given special education for 1 year and randomly selected 27 cases in each group (group II) that given standard education for 1 year. In group I the education period was divided into a first part 6 weeks and a second part 6 weeks with some time in between and with different content for the second part. A questionnaire and also shows similar relationships to lung function and to severity.