**PatientCoach web-application**
Self-management support modules could be customized by the healthcare professionals, allowing to tailor the programme to the specific needs of the patient. These modules included:
- a written action plan with patients health goals
- asthma control questionnaire
- individual question
- pdf’s with education provided by the asthma centre
- helpdesk
- PIKO-1 meter to measure FEV1
- actometer (FitBit)

**METHODS**
- a pragmatic RCT with 1-year follow-up
- asthmatic adults from a high-altitude asthma centre in Davos, Switzerland
- randomisation at the end of a 12-week multi-disciplinary rehabilitation program at high altitude:
  - eHealth self-management support in addition to usual care
  - usual care only after discharge

**RESULTS**
- 93 patients recruited by the staff of the Dutch Asthma Centre Davos.
- 30 patients dropped out since they did not submit any data
- 62 participants
  - Usual care: N=29; eHealth + usual care: N=33 patients.

**Baseline characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Usual care</th>
<th>eHealth + usual care</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yr</td>
<td>44.0 (2.4)</td>
<td>46.7 (2.3)</td>
<td>0.47</td>
</tr>
<tr>
<td>Male (%)</td>
<td>9 (31%)</td>
<td>8 (24%)</td>
<td>0.56</td>
</tr>
<tr>
<td>AQLQ</td>
<td>5.6 (0.2)</td>
<td>5.2 (0.2)</td>
<td>0.11</td>
</tr>
<tr>
<td>ACQ5</td>
<td>1.5 (0.2)</td>
<td>1.9 (0.2)</td>
<td>0.17</td>
</tr>
</tbody>
</table>

**CONCLUSIONS**
- eHealth user engagement
  - Low: N=18
  - High: N=13

**IMPLICATION**
- Implementation of eHealth self-management support is now warranted in order to maintain the level of clinical control in patients with severe asthma after completing pulmonary rehabilitation in an high altitude asthma clinic.

**BACKGROUND**
In severe asthma, it has been shown that HACT improves asthma control. However, asthma symptoms and limitations may worsen after finishing HACT and returning to sea level. We assessed the effectiveness of patient tailored eHealth self-management support in addition to usual care after discharge from HACT.

**DESIGN**
<table>
<thead>
<tr>
<th>HACT</th>
<th>Care in NL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>PatientCoach + usual care</td>
</tr>
<tr>
<td>Control</td>
<td>Usual care</td>
</tr>
</tbody>
</table>

**RESULTS**
- As this was a pragmatic trial, participants were free to use the web-application as often as they liked
- Asthma related quality of life
  - eHealth + usual care
  - Usual care

**CONCLUSIONS**
- eHealth self-management support is associated with a smaller decline in quality of life and asthma control, especially in patients with lower asthma control after completing the high-altitude climate treatment
- Support of eHealth self-management support in adults with severe asthma seems feasible and effective to maintain quality of life and asthma control
- User engagement is an important success factor