

A randomised clinical trial of feedback on inhaler adherence and technique in patients with severe uncontrolled asthma

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Supplementary Tables

Table S1

Goal Orientated Intervention With repeated demonstration of inhaler	Goal Orientated Intervention With Feedback from the INCA
<p>At recruitment, volunteers listed specific goals that they wanted to achieve if they had better asthma control.</p> <p>These goals as the motivation to participate in the program. Barriers to achieving these goals were explored with potential solutions (problem solving and action planning).</p> <p>Habit formation and behavioural practice/rehearsal were promoted.</p> <p>Patients then received individual, tailored, face-to-face asthma education emphasizing proper inhaler technique, following inhaler training from a checklist manual.</p> <p>These techniques were adopted at baseline, and during visits 4, 8 and 12 weeks later (4</p>	<p>The INCA group had a similar intervention to the above, with the following exception.</p> <p>Over three consecutive months this group received two goal-orientated sessions that were guided by visual (bio)feedback on their adherence behaviours from information recorded to the INCATM</p> <p>INCA Feedback</p> <p>Specifically, starting with twice daily use, time of use, errors in timing were discussed with an emphasis on regular interval between doses.</p> <p>Regularity, habit of use was then discussed and emphasized.</p>

separate training dates), at which behavioural and outcome goals were also reviewed, along with focus on past successes. These sessions typically lasted 20 minutes (details are described in protocol paper and Appendix 1).	Finally, specific errors in inhaler handling were discussed and were eliminated by repeated demonstration.
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Table 1. The components of the two interventions used to promote adherence for the study participants is shown.

TABLE S2: Clinical Outcomes: Clinical outcomes from recruitment to the end of the study protocol. These included patient specific goals, Asthma Quality of Life (AQLQ), Asthma Control Test (ACT), Global Initiative for Asthma (GINA) defined controlled, partially controlled and uncontrolled, reliever use, and Peak Expiratory Flow Rate (PEF). *Mean (SD)

	(BIO)FEEDBACK			INTENSIVE EDUCATION		
	Recruitment	End of Month 3	p value	Recruitment	End of Month 3	p value
Goals Achieved	-	50.0%	-	-	43.5%	-
Goals Subunits						
<i>Physical</i>	52%	25%	0.58	55%	30%	0.34
<i>Medical</i>	9%	25%	0.56	8%	22%	0.28
<i>Social</i>	30%	33%	0.16	34%	39%	0.46
<i>Emotional</i>	9%	17%	0.75	3%	9%	0.81
AQLQ*	3.7 (1.2)	4.8 (1.4)	<0.01	3.6 (1.2)	4.6 (1.5)	<0.01
ACT*	12.5 (4.6)	17.4 (5.1)	<0.01	11.7 (4.3)	16.4 (5.9)	<0.01
GINA Controlled	0%	7%		0%	6%	
GINA Partially	12%	27%	≤0.01	14%	25%	0.14

Controlled						
GINA Uncontrolled	88%	66%	<0.01	86%	69%	<0.01
Reliever Use Every	65%	36%	<0.01	66%	38%	<0.01
Day						
PEF* (L/min)	378.8 (128.2)	380.0 (126.5)	0.92	373.2 (143.3)	371.1 (152.2)	0.62
% Expected PEF*	82.6 (228)	83.8 (23.9)	0.93	80.6 (24.3)	79.6 (27.1)	0.60