Appendix 2 (as supplied by the authors): Summary of outcome data from all studies found using the search strategy

Study (year)	Quality of life	Emergency department visits	Hospitalizations	Symptoms	Drop outs	Satisfaction	Adverse events	Other outcomes
Barbanel (2003)[1]				North of England Asthma Symptoms Scale – sig. improvement in intervention group P<0.001	One participant moved away in the control group			
Bynum (2001)[2]					3 students did not attend any visit, 2 students did not attend the follow-up visit	There was no significant difference between the telepharmacy counselling and control groups in mean total score for satisfaction		Metered Dose Inhaler technique against a checklist sig.difference in mean total scores, telepharmacy group improved more P<0.001
Chan (2007)[3]	Paediatric asthma quality of life scores for caregivers improved significantly from baseline in both groups but there was no difference between groups	44 unscheduled asthma related clinic visits in the intervention group and 47 in the face-to-face group 4 ED visits in the intervention group and 2 in the face-to-face group.	One hospitalization in each group	61.1 +/- 29.6 symptom free days in the intervention group and 51.7 +/- 37.6 symptom free days in the face-to-face group, based on incomplete diaries	13 drop outs in the Intervention group and 5 drop outs in the face-to-face group	Mean satisfaction survey score 4.0 +/- 1.0 in intervention group and 4.8 +/-0.2 in face-to-face group		Controller inhaler (coricosteroid) per patient month was 1.0 for intervention group and 1.1 for face-to-face group. Symptom diary was filled in every 2.8 days in the virtual group and 4.8 days in the face-to-face group.
Chatkin (2006)[4]					8 patients were excluded for not responding to telephone calls and 10 for not returning asthma inhaler disks at the end of the study			Adherence to treatment measured according to number of disk doses taken, Adherence rate 51.9% in the control group and 74.3% in the intervention group. (i.e. reduction of relative risk of non-adherence by 47% P<0.001)

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Clark (2007)[5]	Overall mean quality of life score for intervention women was 2.1 (SD=0.9) and for control women was 2.1 (SD=0.9) at the end of the study.	Women in the intervention group had greater reduction ins in ED visits and unscheduled clinic visits for asthma compared to women in the control group.	There was no significant difference between the groups for the number women with at least one hospital admission. Both self reports and hospital record data produced similar results regarding health-care use.	At baseline there were significantly more women with persistent asthma in the intervention group than in the control group P<0.03. The overall reduction in the average number of nights per month when women in the treatment group experienced symptoms was significantly greater than reductions among control group women.	113 drop outs in the intervention group and 87 drop outs in the control group	Women in the intervention group had a greater overall improvement in their confidence to manage asthma		Women in the intervention group had a significantly greater improvement in their overall attendance at work or study. Sex and gender role related queries eg. Asthma related to menstrual cycle, contraceptive pill.
Cruz-Correia (2007)[6]				Asthma control score: from 0 to 3.5 with 5 patients below 0.75, well controlled asthma and 7 patients above 1.5 uncontrolled asthma. The two groups were not significantly different.	3 patients dropped out, one of which was because they moved away from the city and the other two did not give further details.	Only 2 patients wrote negative comments regarding the internet application and 11 regarding the paper diary. For positive comments the numbers are six and one respectively.	There were nine patients who reported problems related to the use of the internet application summing a total of 19 problems. Two patients were unable to use the internet because of technical problems.	Adherence to monitoring was significantly higher for the paper diary than for the internet monitoring, however, the paper monitoring was filled in several days at once.
De Jongste (2009)[7]	Changes from baseline in PACQLQ scores did not differ across groups		Time to first hospitalization for the monitored group on Kaplan Meier chart reached borderline significance (P=0.10)	The percentage of symptom-free days improved significantly within each group. However there was no overall difference between groups.	Two patients in each group were excluded from analysis because of non-compliance.		Mild adverse events included mild upper respiratory illnesses in both groups which did not differ significantly between	There was no significant difference in spirometry between the groups at the end of the study

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				P=0.65. Inhaled corticosteroid use between groups did not differ significantly. There was no significant difference in time to first exacerbation using Kaplan Meier charts.			groups. There was also some technical malfunctions in the equipment	
Donald (2008)[8,9]	Only 24 intervention and 19 control patients completed the QoL analysis. The difference in mean MAQLQ-M at 12 months was small but clinically important.	Seven intervention patients attended a total of 13 times. Five control patients attended a total of 11 times.	There was one admission in the intervention group and six patients were admitted a total of twenty times in the control group – so admissions were rare overall	Neither the difference in reported morbidity, number of days lost (from work or study) or occasions when oral steroids were initiated or increased reached statistical significance at 12 months.	36 patients began the intervention and 31 remained in the end. There were 35 controls and 29 remaining at the end. The reasons for drop-outs were not recorded.	The most common comment regarding the telephone management is that it was helpful to have a second person with whom to discuss the asthma management		The was no clinically important difference in self efficacy scores between the groups at 12 months.
Gruffydd-Jones (2005)[10]					20 out of 82 patients dropped out of the control group. 84 out of 90 patients completed the telephone interventions. The reasons for this are unclear.			Asthma symptoms as per 6 question asthma control questionnaire, asthma specific quality of life, exacerbations, economic evaluation from the perspective of the health service
Guendelman (2002)[11]		6 emergency visits in the control group and 11 in the intervention group over 3 months	4 hospitalizations in the intervention group and 1 in the control group over 3 months	Limitation in activity and reduction in peak flow were significant for treatment effects P<0.03 and	62% of intervention participant returned for follow-up and 60% at 12 weeks.			The difference between groups interms of trouble sleeping or missing work was not significant.

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				P<0.01 respectively				
Jan (2007)[12]	Quality life showed improvement amongst children randomised to the intervention group			Bespoke asthma symptom score, significant improvements in night time symptoms among the intervention group				Intervention group showed statistically significant improvements in both morning and evening PEFR
Khan (2004)[13]	The mean parental asthma quality of life score was the same for follow up of both the control and intervention groups.	There was only one emergency dept visit in the control group and none in the intervention group	There were no hospitalizations in either group	There was an improvement in within group measures of asthma symptoms however across groups there was no difference	25 patients were lost to follow up among the control group and 19 were lost to follow up in the intervention group			
Kokubu (1999)[14]	QoL score improved significantly from baseline among the telemedicine group	Emergency visits reduced in the telemedicine group compared with baseline P=0.05 The difference from baseline was Not significant among the control group.		PEF improved in the telemedicine group. In the translation, it was hard to tell whether this improvement was significant	3 patients dropped out			
Kokubu (2000)[15]	There was an improvement of QoL in both groups but is was significantly greater in the intervention group P=0.04	Emergency visits for the control group was 6.29 (+/- 2.71) for the Intervention group 1.81 (+/- 2.71)	2 patients were hospitalized in the intervention groups and 11 in the control group		4 patients dropped out of the control group and 4 from the intervention group			Costs were calculated as a saving of 757 yen per patient on telemedicine per year.
Ostojic (2005)[16]				PEF variability was significantly smaller in the study group				Per patient per week the additional cost of follow up by SMS text message was 1.67

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				(16.12 +/- 6.93% versus 27.24 +/- 10.01%) Controls had significantly higher scores for cough and night symptoms				Euro
Pinnock (2003, 2005)[17,18]	Juniper QoL overall scores were not different across groups P=0.69	There were no emergency department visits	There were no hospital admissions	There were 3 steroid courses in the control group and 5 in the telephone group	141 patients were initially seen in the intervention group , reduced to 115 at follow up and 137 were seen initially in the telephone review group and 114 of these remained at follow up.	Satisfaction scores were not significantly differenct between groups P=0.51		
Pinnock (2005)[19]					141 patients were in the control group and 137 were randomized to the telephone group. 74% of the telephone group and 48 % of the control group were reviewed P<0.001			Telephone consultations were significantly shorted and mean cost per consultation achieved was lower in the telephone arm £7.19 versus £11.11 P<0.001
Pinnock (2007)[20]	Telephone and usual care Qol Juniper questionnaire scores were not significantly different			Asthma control questionnaire results were not significally different across groups		The allocation was drawn from 3 practices. The numbers completing questionnaires from those identified for review were 270/501, 266/537 and 286/459		Significantly more patients were given an asthma review among the telephone group as compared with the usual care group P<0.01
Rasmussen	AQLQ	Two internet		The Internet				Quality of life, asthma

(2005)[21]	significantly improved in the internet group compared with the other two groups	patients attended the emergency dept and one GP patient during the study		based management tool led to significantly better improvement in the Internet group than in the other 2 groups regarding asthma symptoms. Lung function and airways responsiveness also improved				self-care, smoking , education, salary, sick leave and hospitalizations, symptoms, current medication and lung function at baseline and 6 months and airway responsiveness with methacholine.
Van der Meer (2009)[22]	Quality of life was not significantly different between groups			Asthma control improved more in the Internet group than in the control group. 17 exacerbations occurred in the Internet group and 20 exacerbation occurred in the usual care group	Outcome data was obtained for 90% of patients			Asthma knowledge (12 item consumer Asthma knowledge Questionnaire), inhaler technique, number of medication changes per patient, physician visits, telephone contacts and web communications, asthma quality of life, symptoms (Asthma Control Questionnaire, symptom-free days)
Vollmer (2006)[23]	Overall intention to treat results gave non significant differences between groups	4.1% of the intervention group were hospitalized and 4.0% of the control group.						The insurer mailed surveys to a random sample of 549 health plan members for indicative results, healthcare utilization, and quality of life. There was an 83% response rate.
Willems (2007, 2008)[24,25,26]	No statistically significant difference was found between the groups			No statistically significant differences in improvement in any of the symptoms were observed between the groups				

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