Fig S1: A comparison of the effects of personal best PEF vs % predicted action points on hospitalisations for asthma

Study or sub-category	VVAP n/N	Usual Care n/N	RR (fixed) 95% Cl	Weight %	RR (fixed) 95% Cl
01 Individualised WAP - PEF %	predicted				
Perneger 2002	4/57	6/58		16.30	0.68 [0.20, 2.28]
Yoon 1993	1/28	7/28		19.19	0.14 [0.02, 1.09]
Heard 1999	2/97	5/94		13.92	0.39 [0.08, 1.95]
Moudgil 2000	10/304	18/289		50.59	0.53 [0.25, 1.12]
Subtotal (95% CI)	486	469	◆	100.00	0.46 [0.26, 0.81]
Total events: 17 (WAP), 36 (U	sual Care)				•
Test for heterogeneity: Chi ² = 1 Test for overall effect: Z = 2.7 02 Individualised WAP - PEF po	2 (P = 0.007)	,,			
Ignacio-Garcia 1995	0/35	5/35	-	8.22	0.09 [0.01, 1.58]
Lahdensuo 1996	2/56	3/59		4.36	0.70 [0.12, 4.05]
Cote 1997	2/50	2/54		2.87	1.08 [0.16, 7.38]
Cowie 1997	2/46	6/48		8.77	0.35 [0.07, 1.64]
Ghosh 1998	38/140	50/136	=	75.77	0.74 [0.52, 1.05]
Subtotal (95% Cl)	327	332	•	100.00	0.66 [0.48, 0.91]
Total events: 44 (WAP), 66 (U:	sual Care)				
Test for heterogeneity: Chi² = : Test for overall effect: Z = 2.5		%			
			0.01 0.1 1 10	100	
			Favours WAP Favours Usi	ual Care	

Fig S2: A comparison of the effects of personal best PEF vs % predicted action points on ER visits for asthma

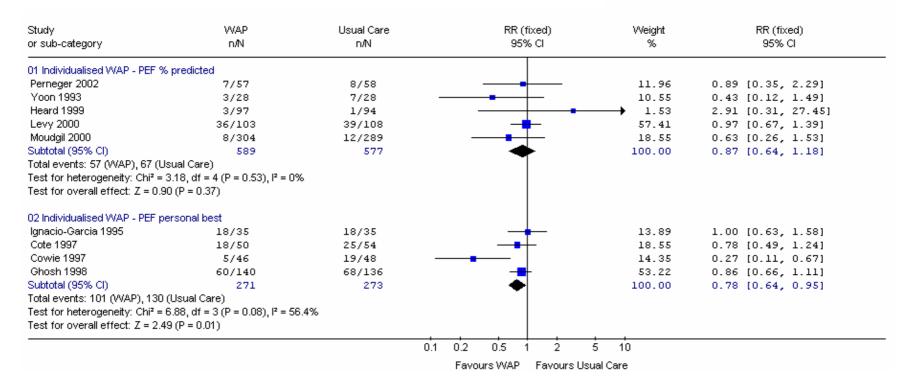


Fig S3: A comparison of the effects of personal best PEF vs % predicted action points on days off work for asthma

Study	WAP	Usual care	RR (fixed)	Weight	RR (fixed)
or sub-category	n/N	n/N	95% CI	<u>~</u>	95% CI
01 Individualised WAP - PEF %	predicted				
Perneger 2002	8/57	11/58		21.19	0.74 [0.32, 1.70]
Yoon 1993	5/28	4/28		7.77	1.25 [0.37, 4.17]
Heard 1999	34/97	36/94	-	71.04	0.92 [0.63, 1.33]
Subtotal (95% CI)	182	180	•	100.00	0.90 [0.65, 1.26]
Total events: 47 (WAP), 51 (U:	sual care)		٦		-
Test for heterogeneity: Chi² = I	0.50 , df = $2 (P = 0.78)$, $I^2 = 0$	%			
Test for overall effect: $Z = 0.6$	0 (P = 0.55)				
02 Individualised WAP - PEF pe	ersonal best				
Ignacio-Garcia 1995	24/35	29/35		54.36	0.83 [0.63, 1.08]
Lahdensuo 1996	13/56	25/59		45.64	0.55 [0.31, 0.96]
Subtotal (95% CI)	91	94	•	100.00	0.70 [0.53, 0.92]
Total events: 37 (WAP), 54 (U:	sual care)		~		
Test for heterogeneity: Chi² = :	,	4.7%			
Test for overall effect: $Z = 2.5$					
	, ,			<u> </u>	
		C	0.1 0.2 0.5 1 2	5 10	
			Favours WAP Favours Us	ual Care	

Fig S4: A comparison of the effects of personal best PEF vs % predicted action points on PEF (mean) for asthma

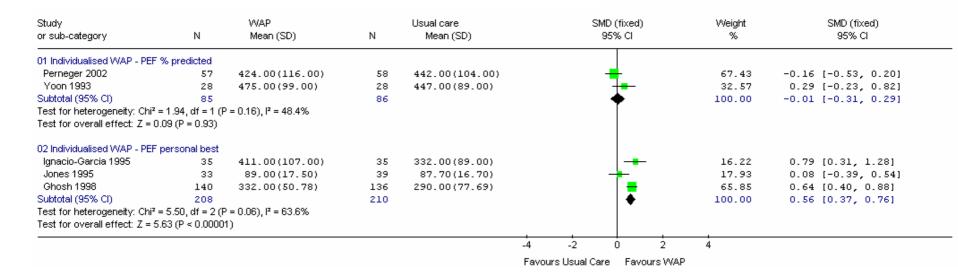


Fig S5: A comparison of the number of action points in written action plans on the outcome of hospitalisations

Study or sub-category	VVAP n/N	Usual care n/N	RR (fixed) 95% Cl	VVeight %	RR (fixed) 95% CI
01 Individualised WAP (4 action	n points)				
Perneger 2002	4/57	6/58		6.76	0.68 [0.20, 2.28]
Cote 1997	2/50	2/54		2.19	1.08 [0.16, 7.38]
Cowie 1997	2/46	6/48		6.67	0.35 [0.07, 1.64]
Ghosh 1998	38/140	50/136		57.64	0.74 [0.52, 1.05]
Heard 1999	2/97	5/94		5.77	0.39 [0.08, 1.95]
Moudgil 2000	10/304	18/289		20.97	0.53 [0.25, 1.12]
Subtotal (95% CI)	694	679	•	100.00	0.65 [0.48, 0.88]
02 Individualised WAP (< 4 act	ion points)				
Yoon 1993	1/28	7/28		45.39	0.14 [0.02, 1.09]
Ignacio-Garcia 1995	0/35	5/35 ←		35.66	0.09 [0.01, 1.58]
Lahdensuo 1996	2/56	3/59		18.95	0.70 [0.12, 4.05]
Subtotal (95% CI)	119	122		100.00	0.23 [0.07, 0.71]
Total events: 3 (WAP), 15 (Ust	ual care)		_		
Test for heterogeneity: $Chi^2 = 2$ Test for overall effect: $Z = 2.53$	2.18 , $df = 2 (P = 0.34)$, $I^2 = 8$	3.1%			
		0.01	0.1 1 10	100	
			Favours WAP Favours Us	ual Care	

Fig S6: A comparison of the number of action points in written action plans on the outcome of ER visits

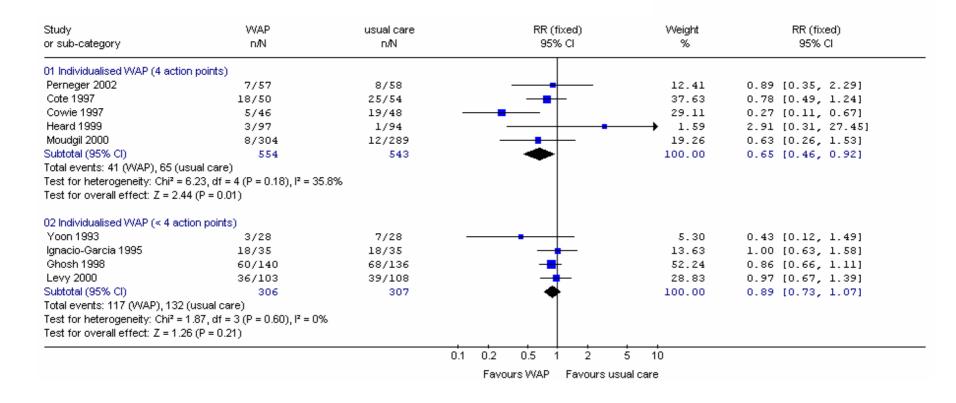


Fig S7: A comparison of the number of action points in written action plans on the outcome of PEF (mean)

or sub-category	N	VVAP Mean (SD)	N	Usual care Mean (SD)	SMD (fixed) 95% Cl	Weight %	SMD (fixed) 95% Cl
	on points						
Perneger 2002	57	424.00(116.00)	58	442.00(104.00)	-	25.56	-0.16 [-0.53, 0.20]
Jones 1995	33	89.00(17.50)	39	87.70(16.70)		15.94	0.08 [-0.39, 0.54]
Ghosh 1998	140	332.00(50.78)	136	290.00(77.69)	=	58.51	0.64 [0.40, 0.88]
Subtotal (95% CI)	230		233		♦	100.00	0.34 [0.16, 0.53]
Test for overall effect: Z = 3.6	•)					
oz inalyladalisca yymr - 5 4 ac		475 00400 005	28	447.00(89.00)	 _	46.15	0.29 [-0.23, 0.82]
Yoon 1993	28	475.00(99.00)	20	11,,00,00,00,		46.15	0.25 [0.20, 0.02]
	28 35	475.00(99.00)	35	332.00(89.00)		46.15 53.85	0.79 [0.31, 1.28]
Yoon 1993		·			-		-

Fig S8: A comparison of action plan presentations (traffic light vs other) on the outcome hospitalisations

Study or sub-category	WAP n/N	Usual Care n/N	RR (fixed) 95% Cl	Weight %	RR (fixed) 95% Cl
01 Individualised WAP (Traffic	liaht)				
Cote 1997	2/50	2/54		27.47	1.08 [0.16, 7.38]
Heard 1999	2/97	5/94		72.53	0.39 [0.08, 1.95]
Subtotal (95% CI)	147	148		100.00	0.58 [0.17, 1.92]
Total events: 4 (WAP), 7 (Usua			-		,,
Test for heterogeneity: Chi² = 0	,	%			
Test for overall effect: Z = 0.90		•			
02 Individualised WAP (No traf			_		
Yoon 1993	1/28	7/28	. —	7.74	0.14 [0.02, 1.09]
Ignacio-Garcia 1995	0/35	5/35		6.08	0.09 [0.01, 1.58]
Lahdensuo 1996	2/56	3/59		3.23	0.70 [0.12, 4.05]
Cowie 1997	2/46	6/48		6.49	0.35 [0.07, 1.64]
Ghosh 1998	38/140	50/136		56.07	0.74 [0.52, 1.05]
Moudgil 2000	10/304	18/289		20.40	0.53 [0.25, 1.12]
Subtotal (95% CI)	609	595	◆	100.00	0.58 [0.43, 0.79]
Total events: 53 (WAP), 89 (Us	sual Care)				
Test for heterogeneity: Chi ² = 5	-	3.1%			
Test for overall effect: Z = 3.50	. , , , , ,				
	- v/			100	
			Favours WAP Favours Usi	ual Care	

Fig S9: A comparison of action plan presentations (traffic light vs other) on the outcome ER visits

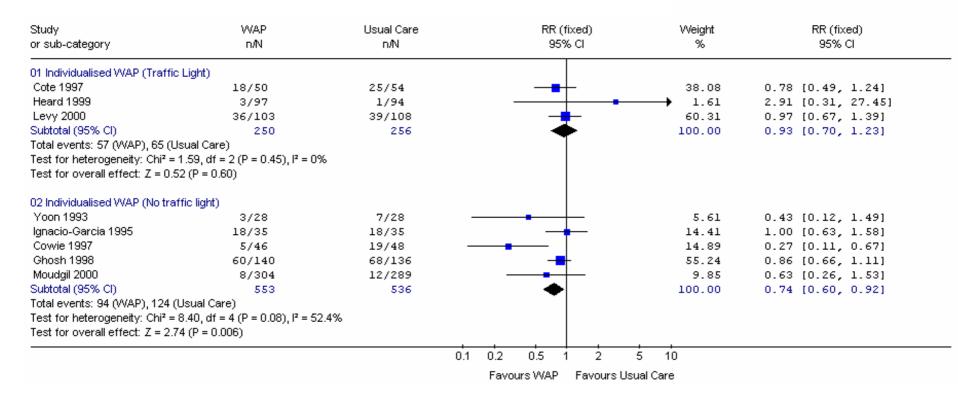


Fig S10: A comparison of action plan presentations (traffic light vs other) on the outcome unscheduled Dr visits

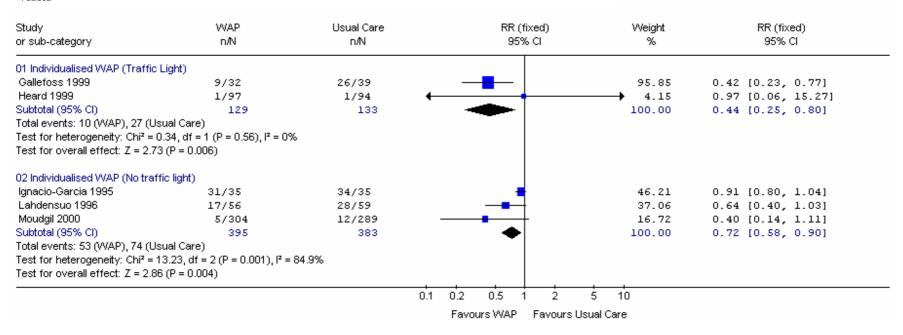


Fig S11: The efficacy of action plan treatments using ICS and OCS based plans on hospitalisations

Study or sub-category	VVAP n/N	Usual Care n/N	RR (fixed) 95% CI	Weight %	RR (fixed) 95% Cl
01 Individualised WAP - ICS &	ocs				
Perneger 2002	4/57	6/58	-	5.75	0.68 [0.20, 2.28]
Yoon 1993	1/28	7/28		6.77	0.14 [0.02, 1.09]
Ignacio-Garcia 1995	0/35	5/35 *		5.32	0.09 [0.01, 1.58]
Lahdensuo 1996	2/56	3/59	as 🗮 😸	2.83	0.70 [0.12, 4.05]
Cote 1997	2/50	2/54	117	1.86	1.08 [0.16, 7.38]
Cowie 1997	2/46	6/48		5.68	0.35 [0.07, 1.64]
Ghosh 1998	38/140	50/136	() () () () () () () () () ()	49.05	0.74 [0.52, 1.05]
Heard 1999	2/97	5/94		4.91	0.39 [0.08, 1.95]
Moudgil 2000	10/304	18/289	· · · · · · · · · · · · · · · · · · ·	17.84	0.53 [0.25, 1.12]
Subtotal (95% CI)	813	801	•	100.00	0.59 [0.44, 0.78]
Total events: 61 (WAP), 102 ((Usual Care)		4400000		Control of the Contro
Test for heterogeneity: Chi ² =	6.38, $df = 8 (P = 0.60), I^2 = 0$	%			
Test for overall effect: $Z = 3.6$	65 (P = 0.0003)				
		o.	1 0.2 0.5 1 2	5 10	
			Favours WAP Favours Us	ual Care	

Fig S12: The efficacy of action plan treatments using ICS and OCS based plans on ER Visits

Study or sub-category	VVAP n/N	Usual care n/N	RR (fixed) 95% Cl	Weight %	RR (fixed) 95% CI
	ocs				
Perneger 2002	7/57	8/58	23 <u>2</u> 2 29	4.05	0.89 [0.35, 2.29]
Yoon 1993	3/28	7/28 -		3.57	0.43 [0.12, 1.49]
Ignacio-Garcia 1995	18/35	18/35	(9.19	1.00 [0.63, 1.58]
Cote 1997	18/50	25/54	-	12.27	0.78 [0.49, 1.24]
Cowie 1997	5/46	19/48 —		9.49	0.27 [0.11, 0.67]
Ghosh 1998	60/140	68/136	17 - 17 - 17 - 17 - 17 - 17 - 17 - 17 -	35.21	0.86 [0.66, 1.11]
Heard 1999	3/97	1/94	X	0.52	2.91 [0.31, 27.45]
Levy 2000	36/103	39/108	_	19.43	0.97 [0.67, 1.39]
Moudgil 2000	8/304	12/289		6.28	0.63 [0.26, 1.53]
Subtotal (95% CI)	860	850	•	100.00	0.81 [0.69, 0.96]
Total events: 158 (WAP), 197 i	(Usual care)		10.40		Committee of the Commit
Test for heterogeneity: Chi² = 1	10.12 , df = 8 (P = 0.26), I^2 = 1	21.0%			
Test for overall effect: $Z = 2.4$					
		0.1	0.2 0.5 1 2	5 10	
		0.1			
			Favours WAP Favours Us	ual Care	

Fig S13: The efficacy of action plan treatments using ICS and OCS based plans on FEV₁ (mean)

Study		WAP		Usual Care			MD (fixed)	Weight	SMD (fixed)
or sub-category	N	Mean (SD)	N	Mean (SD)			95% CI	%	95% CI
01 Individualised WAP - ICS	& OCS								
Yoon 1993	28	2.79(0.81)	28	2.81(0.77)			-	29.02	-0.02 [-0.55, 0.50]
Ignacio-Garcia 1995	35	80.45(19.52)	35	65.48(22.01)			-	33.99	0.71 [0.23, 1.20]
Jones 1995	33	83.20(18.00)	39	81.20(18.30)				36.99	0.11 [-0.36, 0.57]
Subtotal (95% CI)	96		102				•	100.00	0.27 [-0.01, 0.56]
Test for heterogeneity: Chi ² =	4.88, df = 2 (P	= 0.09), I ² = 59.0%					1		
Test for overall effect: Z = 1.	91 (P = 0.06)								
03 Individualised WAP - OCS	only								
Zeiger 1991	92	92.90(22.60)	92	88.70(21.90)			 	26.43	0.19 [-0.10, 0.48]
Grampian 1994	250	74.60(27.80)	260	75.40(27.70)				73.57	-0.03 [-0.20, 0.14]
Subtotal (95% CI)	342		352				•	100.00	0.03 [-0.12, 0.18]
Test for heterogeneity: Chi ² =	1.58, df = 1 (P	= 0.21), I ² = 36.8%							
Test for overall effect: $Z = 0$.	38 (P = 0.71)								
					-4	-2	0 2	4	
					Favour	s Usual Ca	are Favours W	ΔP	

Fig S14: The efficacy of action plan treatments using ICS and OCS based plans on PEF (mean)

Study or sub-category	N	VVAP Mean (SD)	N	Usual Care Mean (SD)		SMD (fixe 95% CI	,	Weight %	SMD (fixed) 95% Cl
01 Individualised WAP - ICS	& OCS								
Perneger 2002	57	424.00(116.00)	58	442.00(104.00)		-		20.16	-0.16 [-0.53, 0.20]
Yoon 1993	28	475.00(99.00)	28	447.00(89.00)		+-	-	9.74	0.29 [-0.23, 0.82]
Ignacio-Garcia 1995	35	411.00(107.00)	35	332.00(89.00)		-		11.37	0.79 [0.31, 1.28]
Jones 1995	33	89.00(17.50)	39	87.70(16.70)		-		12.57	0.08 [-0.39, 0.54]
Ghosh 1998	140	332.00(50.78)	136	290.00(77.69)		+	•	46.16	0.64 [0.40, 0.88]
Subtotal (95% CI)	293		296					100.00	0.39 [0.23, 0.56]
Test for heterogeneity: Chi ² Test for overall effect: Z = 4		, ,,							
03 Individualised WAP - OCS	Sonly								
Zeiger 1991	88	109.20(36.50)	87	104.30(32.20)		 -		25.52	0.14 [-0.16, 0.44]
Grampian 1994	250	335.00(120.00)	260	345.00(130.00)		=		74.48	-0.08 [-0.25, 0.09]
Subtotal (95% CI)	338		347			•		100.00	-0.02 [-0.17, 0.13]
Test for heterogeneity: Chi²	= 1.59, df = 1 (F	P = 0.21), I ² = 37.3%				Ī			
Test for overall effect: $Z = 0$.30 (P = 0.76)								
					-4	-2 0	2	4	
					Favours l	Jsual Care Fa	avours WAP		