# OHS

# E.4 Volume assured non-invasive ventilation (NIV) vs fixed non-invasive ventilation (NIV)

# Figure 37: Disease specific QoL (SRI, 0-100, higher is better, change score from parallel trial)

	Variable Fixed					Mean Difference		Mean Difference					
Study or Subgroup	Mean	an SD Total Mean SD Total				Total	Weight	IV, Fixed, 95% CI		IV,	Fixed, 95%	CI	
Murphy 2012	11	12	23	7	13	23	100.0%	4.00 [-3.23, 11.23]					
Total (95% CI)			23			23	100.0%	4.00 [-3.23, 11.23]			•		
Heterogeneity: Not ap Test for overall effect:		6 (P =	0.28)						-100	-50 Favours f	0 ixed Favo	50 urs variable	100

# Figure 38: Disease specific QoL (SRI, 0-100, higher is better, final value from crossover)

CIUS	sove	• )												
	Variable Fixed Mean SD Total Mean SD Tot							Mean Difference	Mean Difference					
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixed, 95% CI				
Storre 2006	75	16	10	78	14	10	100.0%	-3.00 [-16.18, 10.18]						
Total (95% CI)			10			10	100.0%	-3.00 [-16.18, 10.18]		•				
Heterogeneity: Not ap Test for overall effect:	•	(P =	0.66)						-100	-50 0 50 Favours fixed Favours variable	100			

#### Figure 39: Change in ESS (0-24, higher is worse)

•	Variable			Fixed			-	Mean Difference	Mean Difference
Study or Subgroup	Mean	Mean SD Total Mean SD Total Weight IV, Fixed, 95						IV, Fixed, 95% CI	IV, Fixed, 95% CI
Murphy 2012	-5	6	23	-6	6	23	100.0%	1.00 [-2.47, 4.47]	
Total (95% CI)			23			23	100.0%	1.00 [-2.47, 4.47]	-
Heterogeneity: Not ap Test for overall effect:			0.57)						-20 -10 0 10 20 Favours variable Favours fixed

#### Figure 40: PaCO<sub>2</sub> (lower is better)

	Variable Fixed							Mean Difference		Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI		IV, Rand	om, 95%	CI		
Murphy 2012	6.4	0.8	23	6.2	0.8	23	51.9%	0.20 [-0.26, 0.66]			<b>•</b>			
Storre 2006	5.6	0.7	10	6.1	0.5	10	48.1%	-0.50 [-1.03, 0.03]		-	h			
Total (95% CI)			33			33	100.0%	-0.14 [-0.82, 0.55]		•	•			
0 ,	eterogeneity: Tau² = 0.18; Chi² = 3.78, df = 1 (P = 0.05); l² = 7 est for overall effect: Z = 0.39 (P = 0.70)						74%		-10	-5 Favours variable	0 Favours	5 s fixed	10	

#### Figure 41: Adherence (hrs/night)

0	Variable Fixed							Mean Difference	Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean SD T		Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI			
Murphy 2012	4.2	2.9	23	5.1	2.4	23	100.0%	-0.90 [-2.44, 0.64]				
Total (95% CI)			23			23	100.0%	-0.90 [-2.44, 0.64]	-			
Heterogeneity: Not ap Test for overall effect:			0.25)						-4 -2 0 2 4 Favours fixed Favours variable			

#### Figure 42: AHI (lower is better)

-	Va	е	F	Fixed			Mean Difference		Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixe	d, 95% Cl		
Storre 2006	0	0	10	0	0	10		Not estimable					
Total (95% CI)	10				10		Not estimable						
Heterogeneity: Not ap Test for overall effect:		licabl	e						-50	-25 Favours variable	0 2 Favours fix	+ 25 .ed	50

#### Figure 43: ODI (lower is better)

-	Variable			F	ixed	•		Mean Difference	Mean Difference
Study or Subgroup					Total	Weight	IV, Fixed, 95% CI	CI IV, Fixed, 95% CI	
Storre 2006	33	17	10	27	15	10	100.0%	6.00 [-8.05, 20.05]	
Total (95% CI)			10			10	100.0%	6.00 [-8.05, 20.05]	
Heterogeneity: Not ap Test for overall effect:		(P =	0.40)						-50 -25 0 25 50 Favours variable Favours fixed

#### Figure 44: PaO2 (higher is better)

	Va	riabl	е	F	ixed			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Murphy 2012	9.1	1.2	23	9.3	1.2	23	100.0%	-0.20 [-0.89, 0.49]	
Total (95% CI)			23			23	100.0%	-0.20 [-0.89, 0.49]	
Heterogeneity: Not ap Test for overall effect:		(P =	0.57)						-100 -50 0 50 100 Favours Variable NIV Favours fixed NIV

## E.5 Non-invasive ventilation (NIV) vs lifestyle

#### Figure 45: Change in PaCO<sub>2</sub> at 2 months (lower is better)

J						- 1 -	-		
		NIV		L	ifestyle			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Borel 2012	-4.9	3.8207	18	-1.4	4.2789	17	24.6%	-3.50 [-6.19, -0.81]	
Masa 2015 (severe OSAHS)	-5.5	7	71	-3.2	6	70	38.6%	-2.30 [-4.45, -0.15]	
Masa 2015 (without severe OSAHS)	-6	5.3156	40	-2.8	5.0511	46	36.8%	-3.20 [-5.40, -1.00]	
Total (95% CI)			129			133	100.0%	-2.93 [-4.26, -1.59]	◆
Heterogeneity: $Chi^2 = 0.56$ , $df = 2$ (P = Test for overall effect: Z = 4.29 (P < 0.0	· · ·	= 0%							-20 -10 0 10 Favours NIV Favours lifestyle

#### Figure 46: Change in AHI at 2 months (lower is better)

		NIV		1	ifestyle			Mean Difference	M	ean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IN	/, Fixed, 95% Cl
2.2.1 with severe OSAHS										
Borel 2012	-34.1	35.3919	18	6.3	27.6183	17	4.0%	-40.40 [-61.37, -19.43]		
/lasa 2015 (severe OSAHS) Subtotal (95% CI)	-57	30	71 <b>89</b>	-6.8	30	70 <b>87</b>		-50.20 [-60.10, -40.30] - <b>48.41 [-57.37, -39.46]</b>	•	
Heterogeneity: Chi² = 0.69, df = 1 (P = Fest for overall effect: Z = 10.60 (P < 0		= 0%								
2.2.2 without severe OSAHS										
Masa 2015 (without severe OSAHS) Subtotal (95% CI)	-11	12.5072	40 <b>40</b>	0.1	9.4288	46 <b>46</b>	78.1% <b>78.1%</b>	-11.10 [-15.84, -6.36] - <b>11.10 [-15.84, -6.36]</b>		-
Heterogeneity: Not applicable Fest for overall effect: Z = 4.59 (P ≤ 0.	00001)									
Total (95% CI)			129			133	100.0%	-19.26 [-23.45, -15.07]	•	
Heterogeneity: Chi² = 52.79, df = 2 (P Test for overall effect: Z = 9.01 (P < 0. Test for subgroup differences: Chi² =	00001)	<i></i>		), <b>I²</b> = 98	8.1%			-	-50 -25 Favou	0 25 5 rs NIV Favours lifestyle

#### Figure 47: Change in Epworth at 2 months (0-24, higher is worse)

		NIV					ifestyle	-		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% Cl		
Borel 2012	-3.4	5.2284	18	-2.1	4.6679	17	17.8%	-1.30 [-4.58, 1.98]			
Masa 2015 (severe OSAHS)	-4.8	5	71	-1	4.4	70	40.7%	-3.80 [-5.35, -2.25]			
Masa 2015 (without severe OSAHS)	-2.9	3.7522	40	-1.2	3.3674	46	41.5%	-1.70 [-3.22, -0.18]			
Total (95% CI)			129			133	100.0%	-2.48 [-4.11, -0.86]	◆		
Heterogeneity: Tau <sup>2</sup> = 1.06; Chi <sup>2</sup> = 4.2 Test for overall effect: Z = 2.99 (P = 0.0		(P = 0.12	); I² = 5	3%					-10 -5 0 5 10 Favours NIV Favours lifestyle		

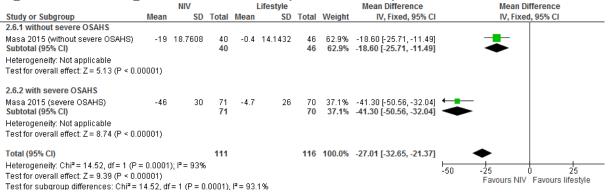
#### Figure 48: Change in HbA1c at 2 months (lower is better)

-		NIV		Lifestyle			-	Mean Difference	Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C		IV,	Fixed, 95%	CI	
Borel 2012	0.04	0.2212	18	-0.12	0.4668	17	100.0%	0.16 [-0.08, 0.40]					
Total (95% CI)			18			17	100.0%	0.16 [-0.08, 0.40]			•		
Heterogeneity: Not app Test for overall effect: 2		8 (P = 0.2	0)						-10	-5 Favours	0 NIV Favou	5 Jrs lifestyle	10

#### Figure 49: Change in SBP at 2 months (lower is better)

3 3 3		NIV		1	Lifestyle			Mean Difference		Mean Di	fference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixed	l, 95% CI	
Borel 2012	-1.3	21.7178	18	-5.4	10.8917	17	36.8%	4.10 [-7.19, 15.39]			-	-
Masa 2015 (without severe OSAHS)	-4.2	21.2623	40	-4.3	19.1943	46	63.2%	0.10 [-8.51, 8.71]			<b></b>	
Total (95% CI)			58			63	100.0%	1.57 [-5.28, 8.42]				
Heterogeneity: $Chi^2 = 0.30$ , $df = 1$ (P = Test for overall effect: Z = 0.45 (P = 0.6		= 0%							-20	-10 Favours NIV	0 10 Favours lifesty	2( 1e

#### Figure 50: Change in ODI at 2 months (lower is better)



#### Figure 51: Change in SF-36 physical summary at 2 months (0-100, higher is better)

		NIV		L	ifestyle		-	Mean Difference		Mean	Differen	се	-
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fiz	ked, 95%	CI	
Masa 2015 (severe OSAHS)	1.8	8.7	71	0.2	6.8	70	70.8%	1.60 [-0.98, 4.18]					
Masa 2015 (without severe OSAHS)	3.1	10.9438	40	0.9	7.4083	46	29.2%	2.20 [-1.81, 6.21]			+		
Total (95% CI)			111			116	100.0%	1.78 [-0.39, 3.94]			•		
Heterogeneity: Chi <sup>2</sup> = 0.06, df = 1 (P = Test for overall effect: Z = 1.61 (P = 0.1	~ ~	= 0%							-100	-50 Favours lifesty	0 /le Favoi	50 JITS NIV	1

#### Figure 52: Change in SF-36 mental summary at 2 months (0-100, higher is better)

		NIV		L	ifestyle			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Masa 2015 (severe OSAHS)	1.7	14	71	1.2	8.8	70	55.4%	0.50 [-3.35, 4.35]	
Masa 2015 (without severe OSAHS)	4.1	12.8199	40	-0.9	9.4288	46	44.6%	5.00 [0.18, 9.82]	
Total (95% CI)			111			116	100.0%	2.51 [-1.88, 6.89]	-
Heterogeneity: Tau² = 5.17; Chi² = 2.04 Test for overall effect: Z = 1.12 (P = 0.2		(P = 0.15);	I² = 51	%					-20 -10 0 10 21 Favours lifestyle Favours NIV

#### Figure 53: Change in FOSQ at 2 months (5-20, higher is better)

		NIV		1	Lifestyle			Mean Difference		Mean	Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fix	ed, 95% Cl	
Masa 2015 (severe OSAHS)	4.3	17	71	-1.7	16	70	67.8%	6.00 [0.55, 11.45]				-
Masa 2015 (without severe OSAHS)	4.4	19.0735	40	-2.7	18.1841	46	32.2%	7.10 [-0.81, 15.01]				
Total (95% CI)			111			116	100.0%	6.35 [1.87, 10.84]				
Heterogeneity: Chi <sup>z</sup> = 0.05, df = 1 (P = Test for overall effect: Z = 2.78 (P = 0.0	~ ~	= 0%							-20 Fa	-10 vours Lifestyl	0 10 le Favours N	

#### Figure 54: PaO2 at 2 months (higher is better)

-	Ex	perimenta	ıl		Control			Mean Difference		M	ean Differen	се	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	CI	
Borel 2012	2.4	10.1663	18	0.15	13.9758	17	100.0%	2.25 [-5.89, 10.39]			-		
Total (95% CI)			18			17	100.0%	2.25 [-5.89, 10.39]			•		
Heterogeneity: Not ap Test for overall effect:	•		)						-100	-50 Favou	0 rs NIV Favo	50 urs lifestyle	100

#### Figure 55: PaCO2 at 3 years (without severe OSA) (lower is better)

		NIV		Lif	festyle	)		Mean Difference		Me	ean Differen	ce	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	6 CI	
Masa 2020	44.26	5.97	48	47.54	5.76	48	100.0%	-3.28 [-5.63, -0.93]					
Total (95% CI)			48			48	100.0%	-3.28 [-5.63, -0.93]			•		
Heterogeneity: Not ap	•								-100	-50	0	50	100
Test for overall effect:	r overall effect: $Z = 2.74$ (P = 0.006)							Favour	s NIV Favo	urs Lifestyle	÷		

#### Figure 56: ESS at at 3 years (without severe OSA) (0-24, higher is worse)

		NIV		Lif	estyle	•		Mean Difference		Me	an Differen	се	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	i Cl	
Masa 2020	4.16	6.18	48	7.13	6.78	48	100.0%	-2.97 [-5.57, -0.37]					
Total (95% CI)			48			48	100.0%	-2.97 [-5.57, -0.37]			•		
Heterogeneity: Not ap Test for overall effect:	•	+ (P = 0	0.02)						-100	-50 Favour	0 s NIV Favo	50 urs Lifestyle	100

#### Figure 57: FOSQ at at 3 years (without severe OSA) (5-20, higher is better)

		NIV		Lif	festyle	•		Mean Difference		Me	ean Differen	се	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	CI	
Masa 2020	77.21	26.5	48	72.16	28.5	48	100.0%	5.05 [-5.96, 16.06]			-		
Total (95% CI)			48			48	100.0%	5.05 [-5.96, 16.06]			•		
Heterogeneity: Not ap	plicable								-100	-50		50	
Test for overall effect:	Z = 0.90	(P = 0	).37)						-100		style Favo		100

# Figure 58: SF-36 Physical at at 3 years (without severe OSA) (0-100, higher is better)

		NIV		Li	festyle			Mean Difference		М	ean Differer	ice	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		١١	/, Fixed, 95%	6 CI	
Masa 2020	37.31	13.57	48	34.96	14.89	48	100.0%	2.35 [-3.35, 8.05]					
Total (95% CI)			48			48	100.0%	2.35 [-3.35, 8.05]			•		
Heterogeneity: Not app	plicable								-100	-50		50	100
Test for overall effect:	Z = 0.81	(P = 0.	42)						-100	Favours Lif	estyle Favo	urs NIV	100

#### Figure 59: SF-36 Mental at 3 years (without severe OSA) (0-100, higher is better)

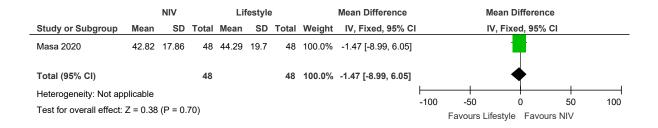


Figure 60: Mortality at 3 years (without severe OSA)

	NIV		Lifest	yle		Risk Ratio			Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% Cl		M-I	H, Fixed, 95	% CI	
Masa 2020	9	48	9	48	100.0%	1.00 [0.43, 2.30]					
Total (95% CI)		48		48	100.0%	1.00 [0.43, 2.30]			$\blacklozenge$		
Total events	9		9								
Heterogeneity: Not ap	plicable						0.01	0.1	1	10	100
Test for overall effect:	Z = 0.00 (	P = 1.0	0)				0.01		s NIV Favo		

#### Figure 61: Cardiovascular events at at 3 years (without severe OSA)

	NIV		Lifest	yle		Risk Ratio			Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% Cl		M-H	, Fixed, 95	% CI	
Masa 2020	10	48	11	48	100.0%	0.91 [0.43, 1.94]					
Total (95% CI)		48		48	100.0%	0.91 [0.43, 1.94]			$\blacklozenge$		
Total events	10		11								
Heterogeneity: Not ap	plicable									10	
Test for overall effect:	Z = 0.25 (	P = 0.8	1)				0.01	0.1 Favours	NIV Favo	10 urs Lifestyle	100 e

### Figure 62: Systolic blood pressure at 3 years (without severe OSA)

		NIV		Lif	festyle			Mean Difference		M	ean Differen	ce	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	CI	
Masa 2020	135.37	19.26	48	132.04	18.31	48	100.0%	3.33 [-4.19, 10.85]					
Total (95% CI)			48			48	100.0%	3.33 [-4.19, 10.85]			•		
Heterogeneity: Not ap Test for overall effect:	•	(P = 0.3	9)						-100	-50 Favour	0 s NIV Favor	50 Jrs Lifestyle	100

#### Figure 63: Diastolic blood pressure at 3 years (without severe OSA)

	NIV			Li	festyle			Mean Difference		Me	ean Differen	се	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	, Fixed, 95%	CI	
Masa 2020	77.51	13.52	48	74.04	12.88	48	100.0%	3.47 [-1.81, 8.75]					
Total (95% CI)			48			48	100.0%	3.47 [-1.81, 8.75]			•		
Heterogeneity: Not ap	plicable								-100	-50	0	<del></del>	100
Test for overall effect:	Z = 1.29	(P = 0.	20)						-100		s NIV Favo		

## E.6 Non-invasive ventilation (NIV) vs CPAP

#### SF-36 physical (0-100, higher is better) Figure 64: Mean Difference CPAP Mean Difference NIV SD Total Weight IV, Fixed, 95% CI Study or Subgroup Mean SD Total Mean IV, Fixed, 95% CI Howard 2017 37.96 8.061 27 40.48 7.5095 30 69.8% -2.52 [-6.58, 1.54] 80 30.2% 0.90 [-5.28, 7.08] Masa 2019 39.9 19.85 76 39 19.48 Total (95% CI) 103 110 100.0% -1.49 [-4.88, 1.90] Heterogeneity: $Chi^2 = 0.82$ , df = 1 (P = 0.36); $l^2 = 0\%$ -100 -50 50 ό Test for overall effect: Z = 0.86 (P = 0.39) Favours CPAP Favours NIV

1

#### Figure 65: SF-36 mental (0-100, higher is better)

_		NIV			CPAP			Mean Difference		Mean Di	fference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixed	l, 95% Cl	
Howard 2017	45.68	11.3279	27	47.08	10.5217	30	25.9%	-1.40 [-7.09, 4.29]		-1	-	
Masa 2019	47.7	10.9	76	47.5	10.55	80	74.1%	0.20 [-3.17, 3.57]				
Total (95% CI)			103			110	100.0%	-0.21 [-3.11, 2.68]		(		
Heterogeneity: Chi² = Test for overall effect			~ ~	= 0%					-100	-50 Favours CPAP	) 5 Favours NI\	-

#### Figure 66: Disease specific QoL SRI (0-100, higher is better)

		NIV			CPAP			Mean Difference		M	ean Differend	се	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% Cl		IV	, Fixed, 95%	CI	
Howard 2017	63.5	15.8675	27	67.58	15.1887	30	100.0%	-4.08 [-12.16, 4.00]			-		
Total (95% CI)			27			30	100.0%	-4.08 [-12.16, 4.00]			•		
Heterogeneity: Not app Test for overall effect:		(P = 0.32	)						-100	-50 Favours (	0 CPAP Favou	50 Jrs NIV	100

#### Figure 67: Change in FOSQ (5-20, higher is better)

-		NIV		Ī	CPAP	-		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Masa 2019	82.7	18.83	76	77.3	17.44	80	100.0%	5.40 [-0.30, 11.10]	
Total (95% CI)			76			80	100.0%	5.40 [-0.30, 11.10]	
Heterogeneity: Not ap Test for overall effect:			06)						-20 -10 0 10 20 Favours CPAP Favours NIV

#### Figure 68: Hours/night

		NIV		C	PAP			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Howard 2017	5.3	2.63	29	5	2.4	31	19.9%	0.30 [-0.98, 1.58]	
Masa 2015 (severe OSAHS)	5.3	2.3	71	5.3	2.1	80	65.1%	0.00 [-0.71, 0.71]	
Piper 2008	6.1	2.1	18	5.8	2.4	18	14.9%	0.30 [-1.17, 1.77]	
Total (95% CI)			118			129	100.0%	0.10 [-0.47, 0.67]	<b>•</b>
Heterogeneity: Chi <sup>2</sup> = 0.24, df =		-	-4 -2 0 2 4						
Test for overall effect: Z = 0.36	(P = 0.7	(2)							Favours CPAP Favours NIV

#### Figure 69: Change in AHI (lower is better)

		NIV		C	PAP			Mean Difference		Me	an Difference	)	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% Cl		IV	, Fixed, 95% C	3	
Masa 2015 (severe OSAHS)	-57	30	71	-60	31	80	100.0%	3.00 [-6.74, 12.74]					
Total (95% CI)			71			80	100.0%	3.00 [-6.74, 12.74]			-		
Heterogeneity: Not applicable Test for overall effect: Z = 0.60	(P = 0.5	55)							-50	-25 Favour	0 s NIV Favour	25 s CPAP	50

#### Figure 70: Change in ODI (lower is better)

		NIV		C	PAP			Mean Difference		Mean Di	fference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixed	d, 95% CI	
Masa 2015 (severe OSAHS)	-46	30	71	-58	33	80	100.0%	12.00 [1.95, 22.05]				
Total (95% CI)			71			80	100.0%	12.00 [1.95, 22.05]				,
Heterogeneity: Not applicable Test for overall effect: Z = 2.34	(P = 0.0	02)							-50	-25 ( Favours NIV	) 25 Favours CPA	

#### Figure 71: Change in PaCO<sub>2</sub> (lower is better)

-		NIV		C	CPAP			Mean Difference		Me	an Differer	ice	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV,	Fixed, 95%	CI	
Masa 2019	43.4	4.73	77	44	0.52	81	95.6%	-0.60 [-1.66, 0.46]					
Piper 2008	-6.9	6.7	18	-5.8	8.4	18	4.4%	-1.10 [-6.06, 3.86]			+		
Total (95% CI)			95			99	100.0%	-0.62 [-1.66, 0.42]			•		
Heterogeneity: Chi² = Test for overall effect	•			); I² = 0%	6				⊢ -100	-50 Favours	0 NIV Favo	50 burs CPAP	1

#### Figure 72: ESS (FV/CS, 0-24, higher is worse)

		NIV			CPAP			Mean Difference		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fixed, 95% CI	
Howard 2017	7.6	6.5699	29	7.26	6.2988	30	59.8%	0.34 [-2.95, 3.63]			
Masa 2019	4.94	33.03	78	4.6	32.7	80	6.1%	0.34 [-9.91, 10.59]			
Piper 2008	-9	5	18	-6	8	18	34.0%	-3.00 [-7.36, 1.36]			
Total (95% CI)			125			128	100.0%	-0.80 [-3.34, 1.75]		•	
Heterogeneity: Chi <sup>2</sup> =	1.49, df	= 2 (P = 1	0.48); P	²= 0%					-20		20
Test for overall effect:	Z = 0.61	(P = 0.5	4)						-20	Favours NIV Favours C	

#### Figure 73: Systolic BP (lower is better)

U		NIV	•		CPAP		'	Mean Difference		Mea	n Differe	ence	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV,	Fixed, 95	% CI	
Howard 2017	137	17.3948	27	137	16.122	30	100.0%	0.00 [-8.74, 8.74]					
Total (95% CI)			27			30	100.0%	0.00 [-8.74, 8.74]			•		
Heterogeneity: Not ap Test for overall effect:			)						-100	-50 Favours	0 NIV Fav	50 ours CP/	100 AP

#### Figure 74: Mortality

	NIV		CPA	Р		Risk Ratio		Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% Cl		M-H, Fixed, 95% Cl	
Masa 2019	11	97	16	107	100.0%	0.76 [0.37, 1.55]			
Total (95% CI)		97		107	100.0%	0.76 [0.37, 1.55]		-	
Total events	11		16						
Heterogeneity: Not ap Test for overall effect:		(P = 0.4	15)				L	0.1 1 10 Favours NIV Favours CPAP	11

#### Figure 75: Cardiovascular events

	NIV		CPA	Р		Risk Ratio		Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% Cl		M-H, Fixed, 95% CI	
Masa 2019	17	97	16	107	100.0%	1.17 [0.63, 2.19]			
Total (95% CI)		97		107	100.0%	1.17 [0.63, 2.19]		•	
Total events	17		16						
Heterogeneity: Not ap Test for overall effect:	•	(P = 0.6	12)				0.01	0.1 1 10 Favours NIV Favours CPAP	1

#### Figure 76: hospitalisation per year per patient

		NIV		C	PAP			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Masa 2019	1.44	3.07	97	1.63	3.74	107	100.0%	-0.19 [-1.13, 0.75]	•
Total (95% CI)			97			107	100.0%	-0.19 [-1.13, 0.75]	•
Heterogeneity: Not ap Test for overall effect:	•		).69)						-10 -5 0 5 10 Favours NIV Favours CPAP

### E.7 CPAP vs lifestyle

#### Figure 77: Change in SF-36 physical (0-100, higher is better) CPAP Lifestyle Mean Difference Mean SD Total Mean SD Total Weight IV, Fixed, 95% CI Mean Difference Study or Subgroup IV, Fixed, 95% CI Masa 2015 (severe OSAHS) 1.2 8.9 80 0.2 6.8 70 100.0% 1.00 [-1.52, 3.52] Total (95% CI) 80 70 100.0% 1.00 [-1.52, 3.52] Heterogeneity: Not applicable Test for overall effect: Z = 0.78 (P = 0.44) -100 -50 0 50 Favours lifestyle Favours CPAP 100

#### Figure 78: Change in SF-36 mental (0-100, higher is better)

	C	CPAP			Lifestyle			Mean Difference		Mean Difference			
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV, Fi	ked, 95%	6 CI	
Masa 2015 (severe OSAHS)	4.6	12	80	1.2	8.8	70	100.0%	3.40 [0.06, 6.74]					
Total (95% CI)			80			70	100.0%	3.40 [0.06, 6.74]			•		
Heterogeneity: Not applicable Test for overall effect: Z = 1.99	(P = 0.0	05)							-100	-50 Favours lifesty	0 e Favc	50 burs CPAP	100

#### Figure 79: Change in FOSQ (5-20, higher is better)

	CPAP			Lifestyle				Mean Difference	Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI				
Masa 2015 (severe OSAHS)	5.1	16	80	-1.7	16	70	100.0%	6.80 [1.67, 11.93]					
Total (95% CI)			80			70	100.0%	6.80 [1.67, 11.93]	-				
Heterogeneity: Not applicable Test for overall effect: Z = 2.60	(P = 0.0	009)		-20 -10 0 10 20 Favours lifestyle Favours CPAP									

#### <Insert Note here>

#### Figure 80: Change in ESS (0-24, higher is worse)

	С	PAP		Lifestyle				Mean Difference	Mean Difference
Study or Subgroup N	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Masa 2015 (severe OSAHS)	-4.3	4.7	80	-1	4.4	70	100.0%	-3.30 [-4.76, -1.84]	
Total (95% CI)			80			70	100.0%	-3.30 [-4.76, -1.84]	•
Heterogeneity: Not applicable Test for overall effect: Z = 4.44 (P	P < 0.0	00001	)						-20 -10 0 10 20 Favours CPAP Favours [lifestyle

#### Figure 81: Change in AHI (lower is better)

•	C	PAP		Lifestyle				Mean Difference		Mean D		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C		IV, Fixe	ed, 95% Cl	
Masa 2015 (severe OSAHS)	-60	31	80	-6.8	30	70	100.0%	-53.20 [-62.97, -43.43]	←			
Total (95% CI)			80			70	100.0%	-53.20 [-62.97, -43.43]				
Heterogeneity: Not applicable Test for overall effect: Z = 10.67 (P < 0.00001)									-50	-25 Favours CPAF	02 V Favours life	5 50 style

### Figure 82: Change in ODI (lower is better)

CPAP				Lif	estyl	е		Mean Difference		Mean D		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C	1	IV, Fixe	d, 95% Cl	
Masa 2015 (severe OSAHS)	-58	33	80	-4.7	26	70	100.0%	-53.30 [-62.75, -43.85]	←			
Total (95% CI)			80			70	100.0%	-53.30 [-62.75, -43.85]				
Heterogeneity: Not applicable Test for overall effect: Z = 11.0	95 (P < 0	.0000	01)						-50	-25 Favours CPAP	0 2 Favours life	25 50 estyle

### Figure 83: Change in PaCO<sub>2 (lower is better)</sub>

-	_ c	PAP		Lifestyle			-	Mean Difference	Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI		IV	Fixed, 95%	CI	
Masa 2015 (severe OSAHS)	-3.7	6.6	80	-3.2	6	70	100.0%	-0.50 [-2.52, 1.52]					
Total (95% CI)			80			70	100.0%	-0.50 [-2.52, 1.52]			•		
Heterogeneity: Not applicable Test for overall effect: Z = 0.49 (P = 0.63)									-100	-50 Favours (	0 CPAP Favor	50 Irs lifestyle	100