





A summary of the Cochrane review:

Combined pharmacotherapy and behavioural interventions for smoking cessation

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Does a combination of smoking cessation medication and behavioural support help smokers to stop?

Background

Behavioural support (such as brief advice and counselling) and medications (including varenicline, bupropion, and nicotine replacement therapies like patches or gum) help people quit smoking. Many guidelines recommend combining medication and behavioural support to help people stop smoking, but it is unclear if some combinations are more effective than others, or if the combination of medication and behavioural support works better in some settings or groups than in others.

Study characteristics

In July 2015 we searched for studies which tested combinations of behavioural support and medication to help smokers to stop compared to usual care or brief behavioural support. People who smoked were recruited mainly in health care settings. Some trials only enrolled people who said they wanted to try to quit at that time, but some included people who weren't planning to quit. Studies had to report how many people had stopped smoking after at least six months.

Key results

We found 53 studies with a total of over 25,000 participants. One very large study testing very intensive support found a large benefit; however, it was not typical of most treatment programmes, and so was not included when we estimated the likely benefit. Based on the remaining 52 studies, we found evidence that using a combination of behavioural support and medication increases the chances of successfully quitting after at least six months by 70 to 100 percent compared to just brief advice or support. There was some evidence that the effect tended to be larger when participants were recruited in healthcare settings. There was no clear evidence that providing more contact increased the number of people who quit smoking at six months or longer.

Trusted evidence. Informed decisions. Better health.

Quality of the evidence

The majority of studies were judged to be at low or unclear risk of bias, and only five of the included studies were judged to be at high risk of bias in one or more domains. The results of the meta-analysis were not sensitive to the exclusion of any single trial. The analysis below is based on what is judged to be high quality evidence.

A forest plot illustrating the effect of combined interventions versus control on quitting smoking at longest follow-up (≥ 6 months)

Study or Subgroup	Interver Events		Contr Events	ol Total	Weight	Risk Ratio M-H, Fixed, 95% CI	Risk Ratio M-H, Fixed, 95% CI
Vewers 2009	13	147	0	155	0.1%	28.46 [1.71, 474.46]	
Stockings 2014	2	104	0	101	0.1%	4.86 [0.24, 99.94]	
Newers 2000	4	8	0	7	0.1%	8.00 [0.51, 126.67]	-
Cooney 2007	4	55	1	63	0.1%	4.58 [0.53, 39.78]	
Baker 2006	5	147	1	151	0.1%	5.14 [0.61, 43.44]	
Vial 2002	9	42	1	22	0.2%	4.71 [0.64, 34.85]	+
Villebro 2008	13	60	2	60	0.2%	6.50 [1.53, 27.57]	
Binnie 2007	3	59	2	57	0.3%	1.45 [0.25, 8.35]	
Lewis 1998	6	62	3	61	0.4%	1.97 [0.52, 7.52]	
Hanioka 2010	12	33	3	23	0.4%	2.79 [0.88, 8.78]	
Juarranz Sanz 1998	37	102	4	103	0.5%	9.34 [3.45, 25.25]	
Tonnesen 2006	13	90	4	88	0.5%	3.18 [1.08, 9.37]	
Brandstein 2011	6	64	4	62	0.5%	1.45 [0.43, 4.90]	
Wakefield 2004	4	66	4	54	0.5%	0.82 [0.21, 3.12]	
Thomsen 2010	7	58	5	61	0.6%	1.47 [0.50, 4.38]	
Segnan 1991	22	294	3	62	0.6%	1.55 [0.48, 5.01]	
Kotz 2009	13	112	4	68	0.6%	1.97 [0.67, 5.81]	
Lee 2015	17	84	5	84	0.6%	3.40 [1.31, 8.79]	
Hall 2002	15	72	4	37	0.7%	1.93 [0.69, 5.39]	
Reid 2008	9	153	4	72	0.7%	1.06 [0.34, 3.32]	
Duffy 2006	15	48	6	41	0.8%	2.14 [0.91, 5.00]	
Chouinard 2005	13	53	7	55	0.8%	1.93 [0.83, 4.45]	+
Molyneux 2003	10	91	7	92	0.9%	1.44 [0.57, 3.63]	
Prochaska 2014	18	111	7	109	0.9%	2.53 [1.10, 5.80]	
Murray 2013 (1)	17	91	7	80	0.9%	2.14 [0.93, 4.88]	
Peckham 2015	10	46	8	51	0.9%	1.39 [0.60, 3.21]	
Okuyemi 2007	5	66	10	107	0.9%	0.81 [0.29, 2.27]	
Hickman 2015	11	47	8	50	1.0%	1.46 [0.64, 3.32]	
Sadr Azodi 2009	18	55	9	62	1.0%	2.25 [1.11, 4.60]	
Carmody 2012	11	81	9	80	1.1%	1.21 [0.53, 2.75]	
Mohiuddin 2007	36	109	9	100	1.2%	3.67 [1.86, 7.23]	
Simon 1997	20	157	9	142	1.2%	2.01 [0.95, 4.27]	
Rodriguez 2003	23	114	9	103	1.2%	2.31 [1.12, 4.76]	
Winhusen 2014	35	267	10	271	1.2%	3.55 [1.80, 7.03]	
Ratner 2004	10	111	11	117	1.3%	0.96 [0.42, 2.17]	
Chan 2010	57	501	12	218	2.1%	2.07 [1.13, 3.77]	
McCarthy 2008	24	113	17	113	2.1%	1.41 [0.80, 2.48]	
An 2006	53	417	17	414	2.1%	3.10 [1.82, 5.25]	
Rigotti 2014	51	194	20	195	2.5%	2.56 [1.59, 4.13]	
Hall 2006	30	163	21	159	2.6%	1.39 [0.83, 2.33]	
maii 2006 Katz 2004	71	642	20	499	2.8%		
	40	402	28	464		2.76 [1.70, 4.47]	
Ockene 1991 Wilson 1988	40 53	606	28 26	601	3.2% 3.2%	1.65 [1.04, 2.62] 2.02 [1.28, 3.19]	
wilson 1966 Haas 2015	71	399	26 25	308	3.5%	2.19 [1.42, 3.37]	
Emmons 2005	7 I 58	386	25 36	398	4.4%	1.66 [1.12, 2.46]	_ _ _
	58 68	204	36 39	194	4.4%		
Otero 2006	68 42	204 500	39 42	194 523		1.66 [1.18, 2.33]	<u> </u>
Velicer 2006 Pornotoin 2016	42 62				5.1%	1.05 [0.69, 1.58]	<u> </u>
Bernstein 2015	62 49	380	45 46	386	5.5%	1.40 [0.98, 2.00]	<u> </u>
Reid 2003		126	46	128	5.6%	1.08 [0.79, 1.49]	
Perez-Tortosa 2015	90	456 601	67 65	492	8.0%	1.45 [1.09, 1.94]	
Schauffler 2001	91	601	65	603	8.0%	1.40 [1.04, 1.89]	<u> </u>
Hollis 2007	153	721	102	872	11.4%	1.81 [1.44, 2.28]	_
Total (95% CI)		10070		9418	100.0%	1.83 [1.68, 1.98]	♦
Total events	1529		808				
Heterogeneity: Chi² = 8		: 51 (P =		² = 369	6		0.01 0.1 1 10
							0.01 0.1 1 10 Favours control Favours intervention
Test for overall effect: Z	14.72						

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