

Table S1. Search strategy

PubMed		
#	Searches	Results
1	"Smoke"[Mesh]	26,342
2	"Tobacco Products"[Mesh]	12,199
3	"Cigarette Smoking"[Mesh]	3,983
4	"Nicotine"[Mesh]	28,605
5	"Tobacco Use"[Mesh]	9,916
6	Smok*[Title/Abstract]	339,380
7	Cigaret*[Title/Abstract]	85,716
8	Tobacco*[Title/Abstract]	122,872
9	Nicotine*[Title/Abstract]	48,571
10	OR/1-9	434,683
11	"Smoking Cessation"[Mesh]	32,975
12	"Tobacco Use Cessation"[Mesh]	1,472
13	"Smoking Reduction"[Mesh]	111
14	Cessation*[Title/Abstract]	87,999
15	Reject*[Title/Abstract]	131,048
16	Reduc*[Title/Abstract]	4,233,954
17	Abstinen*[Title/Abstract]	30,567
18	Resist*[Title/Abstract]	1,315,907
19	Quit*[Title/Abstract]	121,119
20	Stop*[Title/Abstract]	159,355
21	Abandon*[Title/Abstract]	25,533
22	Withdraw*[Title/Abstract]	146,683
23	OR/11-22	5,676,996
24	"Acquired Immunodeficiency Syndrome"[Mesh]	78,871
25	"HIV"[Mesh]	108,145
26	"Acquired Immune Deficiency Syndrome"[Title/Abstract]	6,404
27	"AIDS"[Title/Abstract]	168,859
28	"Acquired Immunodeficiency Syndrome"[Title/Abstract]	20,865
29	"HIV"[Title/Abstract]	359,934
30	"HIV-1"[Title/Abstract]	85,479
31	"HIV-2"[Title/Abstract]	4,954
32	"HIV/AIDS"[Title/Abstract]	36,363
33	"Acquired Immunodeficiency Syndrome"[Title/Abstract]	13
34	"Acquired Immuno-deficiency Syndrome"[Title/Abstract]	139
35	"Acquired Immune-deficiency Syndrome"[Title/Abstract]	6,404
36	"PLWH"[Title/Abstract]	3,942
37	"PLWHA"[Title/Abstract]	1,209
38	24-37	470,357
39	"Randomized Controlled Trial" [Publication Type]	604,682
40	"Randomized Controlled Trials as Topic"[Mesh]	168,946
41	Random*[Title/Abstract]	1,469,820
42	(Blind* [Title/Abstract]) OR (Singleblind* [Title/Abstract]) OR (Doubleblind* [Title/Abstract]) OR (Tripleblind* [Title/Abstract])	355,610
43	(RCT* [Title/Abstract]) OR (Control* [Title/Abstract])	4,744,882
44	("Clinical Trial" [Title/Abstract]) OR ("Clinical Trials" [Title/Abstract]) OR ("Clinical Study" [Title/Abstract]) OR ("Clinical Studies" [Title/Abstract]) OR ("Intention to Treat Analysis" [Title/Abstract])	672,264
45	OR/28-33	6,114,446
46	10 AND 23 AND 38 AND 45	1,004

Web of Science

#	Searches	Results
1	TS=(Smok*)	397,093
2	TS=(cigarett*)	112,927
3	TS=(tobacco*)	167,642
4	TS=(nicotine*)	60,661
5	#1 OR #2 OR #3 OR #4	517,073
6	TS=(Cessation*)	95,687
7	TS=(Reject*)	278,673
8	TS=(Reduc*)	7,539,111
9	TS=(Abstinen*)	31,564
10	TS=(Resist*)	2,698,560
11	TS=(Quit*)	369,115
12	TS=(Stop*)	265,483
13	TS=(Abandon*)	70,918
14	TS=(Withdraw*)	176,640
15	OR/#6-14	10,649,313
16	TS=(“Acquired Immune Deficiency Syndrome”)	5,067
17	TS=(“AIDS”)	204,746
18	TS=(“Acquired Immunodeficiency Syndrome”)	23,230
19	TS=(“HIV”)	412,521
20	TS=(“HIV-1”)	114,757
21	TS=(“HIV-2”)	4,543
22	TS=(“HIV/AIDS”)	41,664
23	TS=(“Acquired Immunodeficiency Syndrome”)	7
24	TS=(“Acquired Immuno-deficiency Syndrome”)	103
25	TS=(“Acquired Immune-deficiency Syndrome”)	5,067
26	TS=(“PLWH”)	3,628
27	TS=(“PLWHA”)	1,038
28	OR/#16-27	523,583
29	TS=(Random*)	2,338,216
30	(((TS=(Blind*)) OR TS=(Singleblind*)) OR TS=(Doubleblind*)) OR TS=(Trebleblind*)) OR TS=(Tripleblind*)	569,724
31	(TS=(RCT*)) OR TS=(Control*)	7,581,401
32	(((TS=(“Clinical Trial”)) OR TS=(“Clinical Trials”)) OR TS=(“Clinical Study”)) OR TS=(“Clinical Studies”)) OR TS=(“Intention to Treat Analysis”)	671,865
33	OR/#29-33	9,613,734
34	#5 AND #15 AND #28 AND #33	1,223

Cochrane Library

#	Searches	Results
1	MeSH descriptor: [Smoke] explode all trees	636
2	(Smok*):ti,ab,kw	44,623
3	(Cigaret*):ti,ab,kw	10,102
4	(Tobacco*):ti,ab,kw	11,507
5	(Nicotine*):ti,ab,kw	8,483
6	OR/#1-5	48,312
7	MeSH descriptor: [Smoking Cessation] explode all trees	5,652
8	(Cessation*):ti,ab,kw	20,215
9	(Reject*):ti,ab,kw	10,080
10	(Reduc*):ti,ab,kw	505,630
11	(Abstinen*):ti,ab,kw	11,598
12	(Resist*):ti,ab,kw	93,025
13	(Quit*):ti,ab,kw	11,776
14	(Stop*):ti,ab,kw	30,053
15	(Abandon*):ti,ab,kw	2,447
16	(Withdraw*):ti,ab,kw	51,691
17	OR/#7-16	639,579
18	MeSH descriptor: [Acquired Immunodeficiency Syndrome] explode all trees	2,282
19	MeSH descriptor: [HIV] explode all trees	3,776
20	("Acquired Immune Deficiency Syndrome"):ti,ab,kw	1,171
21	("AIDS"):ti,ab,kw	26,703
22	("Acquired Immunodeficiency Syndrome"):ti,ab,kw	2,636
23	("HIV"):ti,ab,kw	31,153
24	("HIV-1"):ti,ab,kw	0
25	("HIV-2"):ti,ab,kw	0
26	("Acquired Immunodeficiency Syndrome"):ti,ab,kw	0
27	("Acquired Immuno-deficiency Syndrome"):ti,ab,kw	0
28	("Acquired Immune-deficiency Syndrome"):ti,ab,kw	0
29	("PLWH"):ti,ab,kw	442
30	("PLWHA"):ti,ab,kw	110
31	OR/#18-30	52,036
32	MeSH descriptor: [Randomized Controlled Trial] explode all trees	25,732
33	(Random*):ti,ab,kw	1,268,662
34	(Blind*):ti,ab,kw OR (Singleblind*):ti,ab,kw OR (Doubleblind*):ti,ab,kw OR (Trebleblind*):ti,ab,kw OR (Tripleblind*):ti,ab,kw	450,739
35	(RCT*):ti,ab,kw OR (Control*):ti,ab,kw	1,259,973
36	("Clinical Trial"):ti,ab,kw OR ("Clinical Trials"):ti,ab,kw OR ("Clinical Study"):ti,ab,kw OR ("Clinical Studies"):ti,ab,kw OR ("Intention to Treat Analysis"):ti,ab,kw	691,123
37	OR/#32-36	1,607,797
38	#6 AND #17 AND #31 AND #37	1296

EMBASE

#	Searches	Results
1	'smoking'/exp OR 'smoking'	608,172
2	'cigarette smoking'/exp	65,076
3	'tobacco use'/exp	499,780
4	'nicotine'/exp	54,399
5	smok*:ti,ab,kw	513,315
6	cigarett*:ti,ab,kw	110,356
7	tobacco*:ti,ab,kw	152,771
8	nicotine*:ti,ab,kw	61,993
9	OR/#1-8	764,543
10	'smoking cessation'/exp	69,766
11	cessation*:ti,ab,kw	120,639
12	reject*:ti,ab,kw	195,849
13	reduc*:ti,ab,kw	5,532,212
14	abstinen*:ti,ab,kw	40,813
15	resist*:ti,ab,kw	1,658,525
16	quit*:ti,ab,kw	202,905
17	stop*:ti,ab,kw	246,133
18	abandon*:ti,ab,kw	34,577
19	withdraw*:ti,ab,kw	212,065
20	OR/#10-19	7,573,951
21	'acquired immune deficiency syndrome'/exp	565,203
22	'human immunodeficiency virus'/exp	222,997
23	'acquired immune deficiency syndrome':ti,ab,kw	7,165
24	'aids':ti,ab,kw	210,280
25	'acquired immunodeficiency syndrome':ti,ab,kw	19,858
26	'hiv':ti,ab,kw	467,657
27	'hiv-1':ti,ab,kw	105,396
28	'hiv-2':ti,ab,kw	6,177
29	'hiv/aids':ti,ab,kw	45,843
30	'acquired immunodeficiency syndrome':ti,ab,kw	25
31	'acquired immuno-deficiency syndrome':ti,ab,kw	196
32	'acquired immune-deficiency syndrome':ti,ab,kw	7,165
33	'plwh':ti,ab,kw	5,876
34	'plwha':ti,ab,kw	1,549
35	'human immunodeficiency virus':ti,ab,kw	109,753
36	OR/#21-35	1,020,657
37	'randomized controlled trial'/exp	796,530
38	'randomized controlled trial':ti,ab,kw	150,034
39	randomized:ti,ab,kw	981,037
40	blind:ti,ab,kw OR blinds:ti,ab,kw OR blinded:ti,ab,kw OR blinding:ti,ab,kw OR singleblind:ti,ab,kw OR doubleblind:ti,ab,kw OR trebleblind:ti,ab,kw OR tripleblind:ti,ab,kw	461,803
41	rct:ti,ab,kw OR rcts:ti,ab,kw OR controlled:ti,ab,kw	1,309,565
42	'clinical trial':ti,ab,kw OR 'clinical trials':ti,ab,kw OR 'clinical study':ti,ab,kw OR 'clinical studies':ti,ab,kw OR 'intention to treat analysis':ti,ab,kw	969,253
43	OR/#36-42	2,866,040
44	#9 AND #20 AND #36 AND #43	922

Table S2. List of excluded studies during full-text eligibility assessment

#	Study	Title	Reason for exclude
1	Jessica, 2020	Acceptability of electronic nicotine delivery systems (ENDS) among HIV positive smokers	Unrelated outcome
2	Browning, 2016	Adherence to Tobacco Dependence Treatment Among HIV-Infected Smokers	Unrelated outcome
3	Cropsey, 2015	An Algorithm Approach to Determining Smoking Cessation Treatment for Persons Living With HIV/AIDS: Results of a Pilot Trial	Unrelated outcome
4	Luk, 2021	Association of heated tobacco product use with smoking cessation in Chinese cigarette smokers in Hong Kong: a prospective study	Unrelated population
5	Shuter, 2020	Brief Report: Long-Term Follow-up of Smokers Living With HIV After an Intensive Behavioral Tobacco Treatment Intervention	Duplicate data source
6	Poudel, 2019	A brief tobacco dependence intervention for people living with HIV in Nepal: results of a quasi-experimental study	Unrelated outcome
7	Tseng, 2017	Combining Text Messaging and Telephone Counseling to Increase Varenicline Adherence and Smoking Abstinence Among Cigarette Smokers Living with HIV: A Randomized Controlled Study	Unrelated intervention
8	Ozga, 2023	Co-use of cigarettes and cannabis among people with HIV: Results from a randomized controlled smoking cessation trial	Unrelated outcome
9	Nct, 2020	Development of a Tailored Smoking Cessation Program for Individuals With HIV Infection in Washington, D.C	Registration trial
10	Nct, 2019	Effectiveness of an Integrated Treatment to Address Smoking Cessation and Anxiety/ Depression in People Living With HIV	Registration trial
11	Leas, 2018	Effectiveness of pharmaceutical smoking cessation AIDS in a nationally representative cohort of American smokers	Unrelated population
12	Tindle, 2022	Effectiveness of Varenicline and Cytisine for Alcohol Use Reduction among People with HIV and Substance Use: A Randomized Clinical Trial	Unrelated population
13	Vidrine, 2007	The effects of smoking abstinence on symptom burden and quality of life among persons living with HIV/AIDS	Duplicate data source
14	Mercié, 2018	Efficacy and safety of varenicline for smoking cessation in people living with HIV in France (ANRS 144 Inter-ACTIV): a randomised controlled phase 3 clinical trial	Unrelated intervention
15	Bui, 2023	Ending Tobacco Use Through Interactive Tailored Messaging for Cambodian People With HIV (Project EndIT): Protocol for a Randomized Controlled Trial	Protocol
16	Wewers, 2000	The feasibility of a nurse-managed, peer-led tobacco cessation intervention among HIV-positive smokers	Unrelated outcome
17	Tsima, 2020	Feasibility of implementing a novel behavioural smoking cessation intervention amongst human immunodeficiency virus-infected smokers in a resource-limited setting: A single-arm pilot trial	Unrelated study design
18	Vidrine, 2006	Impact of a cell phone intervention on mediating mechanisms of smoking cessation in individuals living with HIV/AIDS	Duplicate data source
19	Triant, 2020	Impact of Smoking Cessation Interventions Initiated during Hospitalization among HIV-Infected Smokers	Unrelated outcome
20	Nct, 2021	Implementing Tobacco Use Treatment in HIV Clinics Vietnam	Registration trial
21	Nct, 2011	Integrated Treatment for Smoking Cessation & Anxiety in People With HIV	Registration trial
22	Nct, 2022	Integrating Tobacco Use Cessation Into HIV Care and Treatment in Kisumu County, Kenya	Registration trial
23	Gritz, 2013	Long-term outcomes of a cell phone-delivered intervention for smokers living with HIV/AIDS	Unrelated outcome
24	Vidrine, 2015	Mediators of a smoking cessation intervention for persons living with HIV/AIDS	Duplicate data source
25	Nct, 2015	A Mobile Intervention to Promote Cessation in HIV-infected Smokers	Registration trial
26	Nct, 2007	Motivation and Patch Treatment for HIV-positive Smokers	Registration trial
27	Nct, 2020	A Peer Navigator Model to Improve Quit Attempts and Smoking Cessation Rates Among HIV-positive Smokers	Registration trial
28	Kumar, 2017	Physician's advice on quitting smoking in HIV and TB patients in South India: A randomised clinical trial	Unrelated population
29	Kim, 2017	A Pilot Randomized Controlled Trial of Videoconferencing versus Telephone-Based Smoking Cessation Intervention for US Women Living with HIV	Registration trial
30	Kim, 2017	A pilot study of a smoking cessation intervention for women living with HIV: Study protocol	Protocol
31	Cropsey, 2013	A pilot study of Screening, Brief Intervention, and Referral for Treatment (SBIRT) in non-treatment seeking smokers with HIV	Unrelated outcome
32	Valera, 2017	A Pilot Trial Examining African American and White Responses to Algorithm-Guided Smoking Cessation Medication Selection in Persons Living with HIV	Unrelated intervention
33	Ashare, 2019	Placebo-controlled randomized clinical trial testing the efficacy and safety of varenicline for smokers with HIV	Unrelated intervention
34	Ledgerwood, 2015	Prize contingency management for smoking cessation among people living with HIV/AIDS: Preliminary analysis	Only conference abstract
35	Mussulman, 2018	A randomized, controlled pilot study of warm handoff versus fax referral for hospital-initiated smoking cessation among people living with HIV/AIDS	Unrelated outcome
36	Nct, 2016	RCT of an Internet Cessation Program Plus Online Social Network for HIV+ Smokers	Registration trial
37	Wang, 2023	The Role of Seed Users in Nurturing an Online Health Community for Smoking Cessation Among People With HIV/AIDS	Unrelated outcome
38	Cui, 2012	Safety and tolerability of varenicline tartrate (Champix([REGISTERED])/Chantix([REGISTERED])) for smoking cessation in HIV-infected subjects: a pilot open-label study	Unrelated study design
39	Ferketich, 2013	Safety of varenicline among smokers enrolled in the lung HIV study	Unrelated intervention
40	Nct, 2020	A Smart Approach to Treating Tobacco Use Disorder in Persons Living With HIV	Registration trial
41	Gryaznov, 2020	Smartphone App and Carbon Monoxide Self-Monitoring Support for Smoking Cessation: A Randomized Controlled Trial Nested into the Swiss HIV Cohort Study	Unrelated study design

#	Study	Title	Reason for exclude
42	Edelman, 2021	A SMARTTT approach to Treating Tobacco use disorder in persons with HIV (SMARTTT): Rationale and design for a hybrid type 1 effectiveness-implementation study	Protocol
43	Nct, 2007	Smoking Cessation for HIV/AIDS Patients	Registration trial
44	Nct, 2013	Smoking Cessation for People Living With HIV/AIDS	Registration trial
45	Manuel, 2013	Smoking cessation interventions with female smokers living with HIV/AIDS: a randomized pilot study of motivational interviewing	Unrelated outcome
46	Elzi, 2006	A smoking cessation programme in HIV-infected individuals: A pilot study	Unrelated study design
47	Nct, 2011	A Smoking Cessation Trial in HIV-infected Patients in South Africa	Registration trial
48	Ctri, 2023	A study to provide Varenicline and mobile behavioral assistance for quitting tobacco in HIV positive individuals in India	Registration trial
49	Ingersoll, 2009	A test of motivational plus nicotine replacement interventions for HIV positive smokers	Unrelated study design
50	Edwards, 2022	Tobacco Harm Reduction with Vaporised Nicotine (THRiVe): a Feasibility Trial of Nicotine Vaping Products for Smoking Cessation Among People Living with HIV	Unrelated study design
51	Nct, 2022	Trial of a Harm Reduction Strategy for People With HIV Who Smoke Cigarettes	Registration trial
52	Nct, 2012	Varenicline for Nicotine Dependence Among Those With HIV/AIDS	Registration trial
53	Nct, 2022	Adapting and Evaluating a Tobacco Use Cessation Program for People Living With HIV in Uganda and Zambia	Registration trial
54	Nct, 2013	Computer MI for Tobacco Quitline Engagement in Smokers Living With HIV	Registration trial
55	Ditre, 2019	Computer-based personalized feedback intervention for cigarette smoking and prescription analgesic misuse among persons living with HIV (PLWH)	Unrelated outcome
56	Shelley, 2015	Correlates of adherence to varenicline among HIV+ smokers	Unrelated outcome
57	Quinn, 2020	Correlates of varenicline adherence among smokers with HIV and its association with smoking cessation	Duplicate data source
58	Nct, 2018	Cultural Adaptation and Piloting of a Smoking Cessation Intervention for Smokers With HIV	Registration trial
59	Warner, 2020	Dental provider led, personalized tobacco cessation for people living with HIV	Registration trial
60	McClure, 2021	Design and methods of a randomized trial testing the novel Wellness Intervention for Smokers Living with HIV (WISH)	Protocol
61	Tindle, 2020	Design of a randomized controlled trial of smoking cessation medications for alcohol reduction among HIV-positive heavy drinkers and daily smokers in St. Petersburg, Russia	Protocol
62	Shadel, 2016	Developing, a nicotine patch adherence intervention for HIV-positive Latino smokers	Protocol
63	Evans, 1971	Double-blind trial of fenfluramine as an aid to stoppin smoking	Registration trial
64	Thompson, 2020	The effect of varenicline on mood and cognition in smokers with HIV	Duplicate data source
65	Nct, 2018	Effectiveness of a Smoking Cessation Algorithm Integrated Into HIV Primary Care	Registration trial
66	McKetchnie, 2021	Effectiveness of a smoking cessation algorithm integrated into HIV primary care: Study protocol for a randomized controlled trial	Protocol
67	Nct, 2018	Effects of Metformin During Nicotine Withdrawal	Registration trial
68	Nct, 2022	Evaluating Smoking Cessation Interventions for PWH in South Africa	Registration trial
69	Vidrine, 2021	Evaluating the Efficacy of Automated Smoking Treatment for People With HIV: Protocol for a Randomized Controlled Trial	Protocol
70	Garey, 2021	Evaluation of an integrated treatment to address smoking cessation and anxiety/depressive symptoms among people living with HIV: Study protocol for a randomized controlled trial	Protocol
71	Pactr, 2022	HIV and tobacco use cessation	Registration trial
72	Bean, 2018	Impact of substance and alcohol abuse on smoking-related behaviors when using a smoking cessation decisional algorithm among people living with HIV (PLWH)	Only conference abstract
73	Lubitz, 2020	Improved clinical outcomes among persons with HIV who quit smoking	Duplicate data source
74	Nct, 2013	Improving Adherence to Smoking Cessation Medication Among PLWHA	Registration trial
75	Niaura, 2012	Interventions to Address Chronic Disease and HIV: Strategies to Promote Smoking Cessation Among HIV-infected Individuals	Unrelated study design
76	Stanton, 2009	Mediators of the relationship between nicotine replacement therapy and smoking abstinence among people living with HIV/AIDS	Unrelated outcome
77	Bauer, 2021	Medication adherence and rate of nicotine metabolism are associated with response to treatment with varenicline among smokers with HIV	Duplicate data source
78	Nct, 2021	Optimizing Tobacco Treatment Delivery for People Living With HIV	Registration trial
79	Sanford, 2022	Optimizing tobacco treatment delivery for people with HIV: trial protocol for a randomized controlled trial	Protocol
80	Nct, 2016	Patch Study - Intervention for HIV Positive Smokers	Registration trial
81	Cioe, 2021	Peer navigation for smoking cessation in smokers with HIV: Protocol for a randomized clinical trial	Protocol
82	Nct, 2023	Pilot RCT of the Integrated mHealth Intervention "SiS-H"	Registration trial
83	Brin, 2023	Pilot Testing of an mHealth App for Tobacco Cessation in People Living With HIV: Protocol for a Pilot Randomized Controlled Trial	Protocol
84	Tamí-Maury, 2013	Poly-tobacco use among HIV-positive smokers: Implications for smoking cessation efforts	Duplicate data source
85	Nct, 2020	The Positively Quit Trial for Smoking Cessation	Registration trial
86	Kim, 2020	Prediction of Smoking Abstinence in Women Living With Human Immunodeficiency Virus Infection	Duplicate data source
87	Nct, 2021	Preloading With Nicotine Replacement Therapy in HIV-positive Smokers to Improve Self-Efficacy and Quit Attempts	Registration trial

#	Study	Title	Reason for exclude
88	Crothers, 2011	Prevention of bacterial pneumonia in HIV infection: focus on smoking cessation	Unrelated study design
89	Nct, 2021	Quit For Life (QFL): smoking Cessation Among Chinese Smokers Living With HIV	Registration trial
90	Nct, 2021	Randomized Trial of Automated Video-Assisted Smoking Treatment for People Living With HIV	Registration trial
91	Quinn, 2021	Rationale and design of a randomized factorial clinical trial of pharmacogenetic and adherence optimization strategies to promote tobacco cessation among persons with HIV	Protocol
92	Rakesh, 2023	rTMS for smoking cessation in special populations	Only conference abstract
93	Shuter, 2014	Self-efficacy to quit in HIV-infected smokers	Unrelated outcome
94	Nct, 2017	Smartphone-delivered Automated Video-assisted Smoking Treatment for People Living With HIV	Registration trial
95	Nct, 2016	Smoking Cessation Intervention for Women Living With HIV	Registration trial
96	Nct, 2017	Smoking Cessation Interventions for People Living With HIV in Nairobi, Kenya	Registration trial
97	Nct, 2023	South Africa Smoking Cessation and Engagement in HIV/TB Care Care	Registration trial
98	Nct, 2017	Storytelling Narrative Communication Intervention for Smoking Cessation in Women Living With HIV	Registration trial
99	Marhefka, 2021	A tailored telehealth group tobacco cessation treatment program for people with HIV: Study protocol for a randomized controlled trial	Protocol
100	Nct, 2021	TMS for Smoking Cessation in PLWHA Cessation in People Living With HIV/AIDS (PLWHA)	Registration trial
101	Nct, 2023	Tobacco Cessation Texting Intervention for People Living With HIV Who Smoke in Vietnam	Registration trial
102	Nct, 2014	A Trial of Positively Smoke Free Group Therapy for HIV-infected Smokers	Registration trial
103	Nct, 2023	V+PSF-M for Tobacco Cessation in HIV Care in India	Registration trial
104	Nct, 2015	Varenicline vs placebo for smoking cessation: ANRS 144 Inter-ACTIV randomized trial	Registration trial
105	Nct, 2021	Wellness Intervention for Smoking and HIV	Registration trial

Table S3. Characteristics of studies

Investigator	Years	Intervention	Comparison	Sample Size	Gender (M/F)	Age (years), mean (SD)	Endpoint(months)	Outcomes
Bui	2022	Text message	General advice + self-help brochure	50	50/0	43.4 (7.6)/44.9 (6.9)	2	5 ppm ECO verified PPA*
Cleirigh	2023	Targeted intervention	Smoking counseling	53	45/8	30.0-64.0	6	8 ppm ECO verified PPA
Elizabeth	2010	Motivational interviewing	General advice + self-help brochure	440	281/159	42.1 (7.7)	6	10 ppm ECO verified PPA
Humfleet	2013	Cognitive behavioral therapy; Smoking cessation website	General advice + self-help brochure	209	171/38	45.0 (8.0)	12	10 ppm ECO verified PPA
Kierstead	2021	Cognitive behavioral therapy + text message	Smoking counseling	25	18/7	54.0	1	7 ppm ECO verified PPA
Kim	2020	Video-call counseling + smoking cessation film	Video-call counseling + storytelling narrative film	53	0/53	31.0-65.0	3	Continuous abstinence
Kim	2018	Video-call counseling	Vioce-call counseling	42	0/42	51.1 (7.7)	6	Continuous abstinence
Moadel	2012	Group therapy	General advice + self-help brochure	145	71/74	29.0-70.0	NR	10 ppm ECO verified PPA
Mussulman	2018	Warm handoff: transferring the call to the patients' mobile or bedside hospital phone for enrollment and an initial counseling session	Fax referral: staff fax referred patients to the quit line	25	19/6	47.7 (8.6)	6	Continuous abstinence
Schnall	2022	Smoking app	Smoking counseling	40	20/20	53.7 (9.2)	NR	5 ppm ECO verified PPA
Shuter	2014	Smoking cessation website	General advice + self-help brochure	138	76/62	45.4 (9.9)/45.9 (10.0)	3	10 ppm ECO verified PPA
Shuter	2022	Smoking cessation website	Health education	512	290/222	50.5 (10.2)/50.0 (10.6)	6	10 ppm ECO verified PPA
Shuter	2018	Smoking cessation website	General advice + self-help brochure	100	53/47	25.0-64.0	4	10 ppm ECO verified PPA
Stanton	2020	Group therapy	General advice + self-help brochure	442	218/224	50.3 (9.0)/50.8 (9.2)	6	10 ppm ECO verified PPA
Stanton	2015	Targeted intervention	General advice + self-help brochure	302	193/109	NR	12	10 ppm ECO verified PPA
Tucker	2017	Smoking counseling + improving adherence	Smoking counseling	40	0/40	NR	NR	5 ppm ECO verified PPA
Vidrine	2012	Cell phone counseling	General advice + self-help brochure	474	332/142	43.9 (8.3)/45.7 (7.8)	3	7 ppm ECO verified PPA
Vidrine	2006	Cell phone counseling	General advice + self-help brochure	95	74/21	42.6 (8.2)/43.1 (8.1)	NR	7 ppm ECO verified PPA
Wewers	2000	Group therapy	General advice + self-help brochure	15	15/0	42.0 (6.2)/37.0 (6.3)	8	Continuous abstinence

*ppm ECO verified PPA, parts per million expired carbon monoxide-verified 7-day point prevalence abstinence.

Table S4. CINeMA ratings for all comparisons of outcome

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
CBT: GA + SHB	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: SCW	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT + TM: SC	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
CPC: GA + SHB	2	No concerns	Low risk	No concerns	No concerns	No concerns	No concerns	High	/
GA + SHB: GT	2	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: MI	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: SCW	3	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: TI	1	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
GA + SHB: TM	1	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
HE: SCW	1	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Imprecision
SA: SC	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SC: SC + IA	1	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SC: TI	1	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CBT: CBT + TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CBT: CPC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CBT: GT	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: HE	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: MI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: SA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: SC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CBT: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: TI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT: TM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
CBT + TM: CPC	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
CBT + TM: GA + SHB	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
CBT + TM: GT	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
CBT + TM: HE	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
CBT + TM: MI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
CBT + TM: SA	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
CBT + TM: SC + IA	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
CBT + TM: SCW	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CBT + TM: TI	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
CBT + TM: TM	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
CPC: GT	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: HE	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: MI	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: SA	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: SC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: SC + IA	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: SCW	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
CPC: TI	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity

Comparison	Number of studies	Within-study bias	Reporting bias	Indirectness	Imprecision	Heterogeneity	Incoherence	Confidence rating	Reason(s) for downgrading
CPC: TM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: HE	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: SA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GA + SHB: SC	0	Some concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Very low	Within-study bias, Heterogeneity
GA + SHB: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: HE	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: MI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: SA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: SC	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
GT: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: SCW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
GT: TI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
GT: TM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
HE: MI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
HE: SA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
HE: SC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
HE: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
HE: TI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
HE: TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
MI: SA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
MI: SC	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
MI: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
MI: SCW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
MI: TI	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision
MI: TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
SA: SC + IA	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SA: SCW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SA: TI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SA: TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
SC: SCW	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
SC: TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
SC + IA: SCW	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SC + IA: TI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SC + IA: TM	0	No concerns	Low risk	No concerns	No concerns	Major concerns	No concerns	Low	Heterogeneity
SCW: TI	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
SCW: TM	0	No concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Low	Imprecision
TI: TM	0	Some concerns	Low risk	No concerns	Major concerns	No concerns	No concerns	Very low	Within-study bias, Imprecision

CPC: Cell phone counseling; SCW: Smoking cessation website; TI: Targeted intervention; TM: Text message; MI: Motivational interviewing; GT: Group therapy; CBT+TM: Cognitive behavioral therapy + Text message; CBT: Cognitive behavioral therapy; SA: Smoking app; SC + IA: Smoking counseling + Improving adherence; GA + SHB: General advice + Self-help brochure; SC: Smoking counseling; HE: Health education

Table S5. Net league table

CPC	SCW	TI	TM	MI	GT	CBT + TM	CBT	SA	SC + IA	GA + SHB	SC	HE
2.34 (1.00,5.48)												
3.42 (1.18,9.97)	1.46 (0.53,4.00)											
0.72 (0.15,3.38)	0.31 (0.07,1.38)	0.21 (0.04,1.08)										
3.64 (1.52,8.71)	1.55 (0.70,3.44)	1.06 (0.38,2.97)	5.09 (1.11,23.33)									
2.72 (1.26,5.88)	1.16 (0.59,2.30)	0.79 (0.31,2.04)	3.80 (0.88,16.49)	0.75 (0.37,1.52)								
41.74 (3.24,538.45)	17.82 (1.42,224.08)	12.20 (1.19,124.55)	58.34 (3.39,1004.36)	11.47 (0.90,145.31)	15.35 (1.25,188.35)	CBT + TM						
2.97 (1.16,7.61)	1.27 (0.63,2.54)	0.87 (0.29,2.57)	4.15 (0.87,19.81)	0.82 (0.33,1.99)	1.09 (0.49,2.41)	0.07 (0.01,0.92)	CBT					
21.25 (1.27,355.17)	9.07 (0.56,148.15)	6.21 (0.46,84.09)	29.70 (1.36,646.66)	5.84 (0.35,96.00)	7.82 (0.49,124.82)	0.51 (0.06,3.99)	7.16 (0.43,120.34)	SA				
13.66 (1.06,176.88)	5.83 (0.46,73.61)	3.99 (0.39,40.93)	19.09 (1.11,329.81)	3.75 (0.29,47.74)	5.02 (0.41,61.88)	0.33 (0.06,1.78)	4.60 (0.35,59.97)	0.64 (0.08,5.07)	SC + IA			
3.29 (1.71,6.32)	1.40 (0.82,2.42)	0.96 (0.41,2.24)	4.60 (1.12,18.81)	0.90 (0.51,1.61)	1.21 (0.80,1.83)	0.08 (0.01,0.93)	1.11 (0.56,2.18)	0.15 (0.01,2.40)	0.24 (0.02,2.87)	GA + SHB		
31.88 (3.32,306.01)	13.61 (1.46,126.92)	9.32 (1.27,68.39)	44.56 (3.36,590.09)	8.76 (0.93,82.39)	11.73 (1.29,106.33)	0.76 (0.23,2.52)	10.74 (1.11,103.84)	1.50 (0.28,8.04)	2.33 (0.70,7.77)	9.69 (1.11,84.47)	SC	
3.98 (1.49,10.65)	1.70 (1.04,2.79)	1.16 (0.38,3.57)	5.57 (1.14,27.27)	1.09 (0.43,2.79)	1.47 (0.63,3.41)	0.10 (0.01,1.26)	1.34 (0.57,3.15)	0.19 (0.01,3.20)	0.29 (0.02,3.86)	1.21 (0.58,2.53)	0.12 (0.01,1.23)	HE

High certainty

Moderate certainty

Low certainty

Very low certainty

CPC: cell phone counseling; SCW: smoking cessation website; TI: targeted intervention; TM: text message; MI: motivational interviewing; GT: group therapy; CBT + TM: cognitive behavioral therapy + text message; CBT: cognitive behavioral therapy; SA: smoking app; SC + IA: smoking counseling + improving adherence; GA + SHB: general advice + self-help brochure; SC: smoking counseling; HE: health education.

therapy + text message; CBT: cognitive behavioral therapy; SA: smoking app; SC + IA: smoking counseling + improving adherence; GA + SHB: general advice + self-help brochure; SC: smoking counseling; HE: health education.

Table S6: MeanRank

Treatment	SUCRA	PrBest	MeanRank
Cell phone counseling	93.7	33.0	1.8
Smoking cessation website	73.6	0.3	4.2
Targeted intervention	52.8	0.2	6.7
Text message	94.8	64.8	1.6
Motivational interviewing	48.2	0.0	7.2
Group therapy	65.1	0.0	5.2
Cognitive behavioral therapy + text message	7.0	0.0	12.2
Cognitive behavioral therapy	59.5	0.1	5.9
Smoking app	20.5	0.7	10.5
Smoking counseling + improving adherence	28.3	0.9	9.6
General advice + self-help brochure	52.5	0.0	6.7
Smoking counseling	10.0	0.0	11.8
Health education	43.7	0.0	7.8

Table S7. Publication bias

