

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Public Health & Social Care Centre

A review of reviews of educational interventions designed to change the public's knowledge and behaviour in relation to antimicrobial use and antimicrobial resistance that target healthcare professionals and patients

Review protocol: June 2015

Details	
Guideline details	
Guideline	Antimicrobial stewardship - changing risk-related behaviours in the general population
Objective of review	To review systematic reviews which compare patient/public education interventions with interventions that target healthcare professionals (with or without a patient education component).
Review details	
Review title	A review of reviews of educational interventions designed to change the public's knowledge and behaviour in relation to antimicrobial use and antimicrobial resistance that target healthcare professionals and patients.
Review methods	
Review question(s)	Are educational interventions that target both patients and healthcare professionals effective at changing the public's knowledge and behaviour in relation to antimicrobial use and antimicrobial resistance?
Sub-question(s)	What is the relative effectiveness of combined interventions that target both patients and healthcare professionals versus interventions that focus only on the public or focus only on healthcare professionals?
Searches	<p>Search approach:</p> <p>Search concepts:</p> <p>Limits: Publication limit 2001-current English-language studies</p> <p>Databases (RQ 1.1 and RQ 1.2):</p> <ul style="list-style-type: none"> • Medline and Medline in Process via Ovid • The Cochrane Library: CDSR, HTA and DARE via Wiley • Embase via Ovid <p>Search strategy: see below.</p> <p>Websites The following websites will be browsed:</p> <ul style="list-style-type: none"> • DOPHER via http://eppi.ioe.ac.uk/webdatabases4/Intro.aspx?ID=9 • Google Scholar http://scholar.google.co.uk/ • HealthEvidence via http://thevidence.org/search-login.aspx • NICE Evidence http://www.evidence.nhs.uk/ • TRIP https://www.tripdatabase.com/ • Web of Science via http://apps.webofknowledge.com
Condition or domain being studied	Antimicrobial use and misuse, antimicrobial resistance

Participants/ population	<p>Included:</p> <ul style="list-style-type: none"> • General public or patients AND healthcare professionals/prescribers <p>Excluded:</p> <ul style="list-style-type: none"> • Healthcare professionals/prescribers only OR patient/public only (no combined) • Low income countries only
Intervention(s), exposure(s)	Educational interventions for the general public/patients and/or for healthcare professionals
Comparator(s)/ control	<p>Included:</p> <ul style="list-style-type: none"> • no intervention • educational interventions for the general public/patients and/or for healthcare professionals
Types of study to be included initially	Systematic reviews
Primary/Critical outcomes	<p>Changes in:</p> <ul style="list-style-type: none"> • knowledge and awareness of when, why and how antimicrobials should be used • knowledge and awareness of antimicrobial resistance • knowledge of the type of support people can expect from health professionals in relation to the use of antimicrobials • demand for antimicrobials (particularly antibiotics) (e.g. changes in consultation rates, requesting antibiotics for a cold or flu) • adherence to prescribed antimicrobials • inappropriate antimicrobial use (e.g. self-medicating with antimicrobials without advice from a healthcare professional) • antimicrobial prescribing
Risk of bias (quality) assessment	The quality of systematic reviews is not being assessed for the purposes of the draft review. Quality assessment may be undertaken at a later date using the relevant checklist recommended in the NICE guidelines manual
Strategy for data synthesis	Data will be synthesised in tabular form and using narrative synthesis methods.
General information	
Type of review	Review of reviews

Search strategy

All searches were run on 15 May 2015. The following search strategy was also run in Cochrane Library databases and adapted as appropriate before running in Embase.

Database(s): Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1946 to Present

Search Strategy:

#	Searches	Results
1	exp Drug Resistance, Bacterial/ or exp Drug Resistance, Multiple/ anti-infective agents/ad, tu or anti-bacterial agents/ad, tu or antibiotics, antitubercular/ad, tu or	77059
2	antitubercular agents/ad, tu or antifungal agents/ad, tu or anti-infective agents, local/ad, tu or antiparasitic agents/ad, tu or anthelmintics/ad, tu or antiprotozoal agents/ad, tu or antiviral agents/ad, tu or anti-retroviral agents/ad, tu (antibiotic* or anti-biot* or "anti biot*" or antimicrob* or "anti microb*" or antibacter* or anti-	240811
3	bacter* or "anti bacter*" or antiviral* or anti-viral* or "anti viral*" or antiparasitic* or anti-parasitic* or "anti parasitic*" or antifungal* or anti-fungal* or "anti fungal*").ti,ab.	437123
4	or/1-3 (multifacet* or multicomponent* or multitarget* or multisector* or multipartner* or multidisciplin* or multi facet* or multi component* or multi target* or multi sector* or multi partner* or multi	620443
5	disciplin*) adj3 (intervention* or program* or initiative* or collaborat* or coordinat* or counsel* or educat* or learning or informat* or communicat* or advice* or advis* or literacy or publication* or curriculum* or curricula* or teach* or trainer* or training or resource* or session* or workshop* or material* or outreach)).ti,ab.	10346
6	physician-patient relations/ or professional-family relations/ or professional-patient relations/	94235
7	Decision Support Techniques/	13389
8	((shared or informed or collaborat*) adj3 (decision* or choice*)).ti,ab.	11106
9	or/5-8	126794
10	4 and 9	1393
11	exp education, professional/ or exp inservice training/ or vocational education/	264388
12	exp Schools, Health Occupations/ or exp Students, Health Occupations/	79447
13	11 or 12	303084
14	4 and 13 behavior therapy/ or Education/ or Models, Educational/ or Education, Distance/ or Education,	1035
15	Continuing/ or Curriculum/ or Teaching materials/ or Teaching/ or computer-assisted instruction/ or exp Programmed Instruction as Topic/	159553
16	Pamphlets/ or exp Audiovisual aids/ or communications media/ or exp marketing/ or Advertising as Topic/ or Persuasive Communication/ or Social Networking/ or internet/	173158
17	Libraries/ or Library materials/ or Library Services/ or Information services/ or Information	32425

	Dissemination/ or access to information/ or Information Literacy/ or Information Seeking Behavior/	
18	((outreach or written or printed or oral or campaign* or resource* or disseminat*) adj1 information).ti,ab.	5910
19	(marketing or advertis* or publicis* or publiciz* or publicity or mass media or media campaign* or communication* media).ti,ab.	37661
20	(internet* or social media or social network* or facebook or twitter or blog* or SMS or short messaging service* or smartphone* or mobile app or mobile apps or mobile application* or tweet or text messag* or texting or emailing or podcast* or ((mobile or cell* or smart) adj (phone* or telephone*))).ti,ab.	52927
21	or/15-20	404652
22	Physician's Practice Patterns/ or Nurse's Practice Patterns/ or Dentist's Practice Patterns/ or Inappropriate Prescribing/pc	46604
23	((practice* or practise* or prescri* or dispens*) adj2 pattern*).ti,ab.	8941
24	exp health personnel/ or "Attitude of Health Personnel"/ or exp professional role/	478405
25	or/22-24	518799
26	4 and 21 and 25	330
27	((counsel* or educat* or learning or informat* or communicat* or pamphlet* or handout* or hand-out* or hand out* or booklet* or leaflet* or advice* or advis* or literacy or literature or video* or audio* or web* or website* or poster or posters or publication* or curriculum* or curricula* or teach* or trainer* or training or program* or intervention* or resource* or meeting*1 or session*1 or workshop*1 or visit*1 or material*1 or initiative*1 or outreach) adj3 (clinician* or doctor* or physician* or nurse* or pharmacist* or general practitioner* or prescriber* or dispenser* or dentist*).ti,ab.	88221
28	((behavior* or behaviour*) adj3 (change* or changing or alter* or modification* or modify or modifying or modifies or modified or therapy or therapies) adj3 (clinician* or doctor* or physician* or nurse* or pharmacist* or general practitioner* or prescriber* or dispenser* or dentist*).ti,ab.	830
29	27 or 28	88792
30	4 and 29	1971
31	14 or 26 or 30	3065
32	Patient Education as Topic/ or Consumer Health Information/ or Patient Education Handout/	77851
33	4 and 32	1360
34	exp patients/ or exp parents/ or exp Family/ or Caregivers/	323039
35	Patient Acceptance of Health Care/ or Patient Satisfaction/ or exp patient compliance/	145934
36	attitude to health/	74234

37 or/34-36	509377
38 health education/ or health promotion/ or Health Communication/ or health literacy/ or Public Health/ed or self efficacy/	120574
39 21 or 38	501926
40 37 and 39	47514
41 4 and 40	321
((counsel* or educat* or learning or informat* or communicat* or pamphlet* or handout* or hand-out* or hand out* or booklet* or leaflet* or advice* or advis* or literacy or literature or video* or audio* or web* or website* or poster or posters or publication* or curriculum* or curricula* or	
42 teach* or trainer* or training or program* or intervention* or resource* or meeting*1 or session*1 or workshop*1 or visit*1 or material*1 or initiative*1 or outreach) adj3 (public* or patient* or family or families or mother* or father* or parent* or carer* or caregiver* or care-giver* or inpatient* or in-patient* or outpatient* or out patient* or population* or community or communities)).ti,ab.	405867
((behavior* or behaviour*) adj3 (change* or changing or alter* or modification* or modify or modifying or modifies or modified or therapy or therapies) adj3 (public* or patient* or family or	
43 families or mother* or father* or parent* or carer* or caregiver* or care-giver* or inpatient* or in-patient* or outpatient* or out patient* or population* or community or communities)).ti,ab.	3727
44 42 or 43	408368
45 4 and 44	10094
46 33 or 41 or 45	11269
47 31 and 46	730
48 10 or 47	2039
49 limit 48 to yr="2001 -Current"	1566
50 limit 49 to english language	1494
51 Meta-Analysis as Topic/ or exp Review Literature as Topic/ or (Meta-Analysis or review).pt.	2019835
52 (metaanaly* or metanaly* or (meta adj2 analy*)).ti,ab.	77345
53 (systematic* adj3 (review* or overview* or synthesis)).ti,ab.	73142
54 ((quantitative* or qualitative*) adj3 (review* or overview*)).ti,ab.	3974
55 (pool* adj1 (analy* or data)).ti,ab.	11427
56 or/51-55	2059186
57 50 and 56	274
58 remove duplicates from 57	268