**Additional File 2.** Description of the 76 meta-analyses

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Name | Condition studied | Intervention in experimental arm | Intervention in the control arm | Outcome | Number of patients Total, median [min-max] | Combined OR [95% CI] | Heterogeneity I2 (%) |
| Cross AJ, 2020 | Prescribed multiple medication | Mixed educational and behavioral interventions | No added intervention i.e. “usual care” | Adherence | 2517, 120(4-1340) | 0.48[0.31;0.75] | 71 |
| Cassan S, 2020 | Sore throat | Corticosteroids | Placebo | Complete resolution of pain at 24h | 851,77(57-565) | 0.3 [0.13;0.7] | 67 |
| Reeve E, 2020 | Hypertensive drugs withdrawal | Discontinuation treatment | No added intervention i.e. “usual care” | All cause of mortality | 568,106(77-385) | 2.6[0.86;7.83] | 0 |
| Howes S, 2020 | Smoking cessation | Bupropion | Placebo/no pharmacy control | Smoking cessation | 1785,251(47-593) | 0.711.64[0.53;0.94] | 20 |
| Matkin W, 2019 | Smoking cessation | Telephone counselling | Active comparator | Cessation at longest follow-up | 5930,290(40 – 1368) | 0.7[0.51;0.98] | 65 |
| Livingston-Banks J, 2019 | Smoking cessation | No contact/face to face/ advice | No added intervention i.e. “usual care” | Long term abstinence | 6651,1253(397-2465) | 0.9[0.75;1.09] | 0 |
| Lindson N, 2019 | Smoking cessation | Motivational intervention | Active comparator | Cessation | 1304,210(85-536) | 0.95[0.55;1.65] | 73 |
| Lindson N, 2019 | Smoking cessation | Reduction to quit | Active comparator | Abstinence | 1376,185(70-697) | 0.54[0.26;1.11] | 54 |
| Hartmann‐Boyce J, 2019 | Smoking cessation | Increasing behavioural support | Active comparator | Abstinence at longest follow up | 4586,376(64-925) | 0.97 [0.82;1.14] | 0 |
| Guo Q, 2019 | Pediatric antibiotic-associated diarrhea | Probiotics | Active control/placebo/no treatment | Incidence of diarrhea | 4181112(15–616) | 0.35[0.24;0.51] | 58 |
| Kaner EFS, 2018 | Brief alcohol intervention  | Brief intervention  | Minimal/no intervention  | Heavy drinkers at 12 months | 7623366,5(64-907) | 0.68[0.55;0.83] | 73 |
| de Barra M, 2018 | Pharmacist services  | Pharmacist intervention  | No added intervention i.e. “usual care” | % outside blood pressure range | 3069228(55-730) | 0.39[0.26;0.6] | 85 |
| Rankin A, 2018 | Polypharmacy for older people  | Pharmaceutical care  | No added intervention i.e. “usual care” | The proportion of patients with one or more potentially inappropriate medications | 2347265,5(22-697) | 0.6[0.31;1.19] | 90 |
| Thomas RE, 2018 | Vaccination in older people | Reminder and recall  | No added intervention i.e. “usual care” | Uptake of vaccination against influenza  |

|  |
| --- |
| 2639 |
| 301 |
| (95-900) |
|  |

 | 0.82[0.51 ;1.32] | 83 |
| Gates A, 2018 | Croup in children  | DXM  | Active comparator | Return visits or (re)admissions or both by inpatient/outpatient |

|  |
| --- |
| 306 |
| 87 |
| (86-133) |
|  |

 | 0.32[0.14;0.74] | 12 |
| Lemiengre MB, 2018 | Rhinosinusitis in adults  | Antibiotics  | Placebo | Cure  |

|  |
| --- |
| 1306 |
| 197,5 |
| (127-384) |
|  |

 | 0.78[0.57;1.08] | 44 |
| Lawrenson JG, 2018 | Diabetic retinopathy screening | Any QI intervention  | No added intervention i.e. “usual care” | Proportion of participants attending screening |

|  |
| --- |
| 200902 |
| 336 |
| (72-188169) |
|  |

 | 0.51[0.41;0.64] | 91 |
| Redmond P, 2018 | Medication reconciliation for improving transition of care  | Medication reconciliation  | No added intervention i.e. “usual care” | At least 1 medication discrepancy per participant |

|  |
| --- |
| 4312 |
| 246 |
| (29-851) |
|  |

 | 0.23[0.12;0.43] | 93 |
| Jacobson Vann JC, 2018 | Recall intervention to improve vaccination  | Patient reminder  | No added intervention i.e. “usual care” | Immunized |

|  |
| --- |
| 16176 |
| 432 |
| (112-6106) |
|  |

 | 0.52[0.41;0.65] | 84 |
| Bridgwood B, 2018 | Stroke prevention  | Organisational intervention  | No added intervention i.e. “usual care” | Blood pressure target achievement  |

|  |
| --- |
| 19554 |
| 303 |
| (36-17511) |
|  |

 | 0.83[0.79;0.88] | 0 |
| Hartmann‐Boyce J, 2018 | Smoking cessation  | NRT | Placebo/no NRT  | Smoking cessation  |

|  |
| --- |
| 14582 |
| 295 |
| (81-1843) |
|  |

 | 0.67[0.6;0.75] | 0 |
| Bighelli I, 2018 | Panic disorder in adults  | SSRIs (antidepressant) | Placebo | Failure to respond  |

|  |
| --- |
| 357 |
| 56 |
| (29-169) |
|  |

 | 0.25[0.08;0.75] | 74 |
| van den Brand FA, 2017 | Smoking cessation  | Full coverage  | No added intervention i.e. “usual care” | Abstinence from smoking  |

|  |
| --- |
| 338 |
| 70 |
| (48-220) |
|  |

 | 0.29[0.11;0.79] | 0 |
| Rice VH, 2017 | Smoking cessation  | All nursing intervention  | No added intervention i.e. “usual care” | Smoking cessation at longest follow-up |

|  |
| --- |
| 13486 |
| 280,5 |
| (25-1942) |
|  |

 | 0.71[0.61;0.82] | 38 |
| Spurling GKP, 2017 | Respiratory infection | Delayed antibiotic | Active comparator | Number of participants with pain on days 3 to 6 |

|  |
| --- |
| 596 |
| 212 |
| (119-265) |
|  |

 | 1.28[0.77 ;2.13] | 39 |
| Lenferink A, 2017 | COPD | Self-management  | No added intervention i.e. “usual care” | Respiratory-related hospital admissions (number of patients with at least one admission) |

|  |
| --- |
| 2564 |
| 172 |
| (38-743) |
|  |

 | 0.71 [0.51;098] | 51 |
| Lancaster T, 2017 | Smoking cessation  | Counselling  | Minimal contact control  | Smoking cessation at longest follow-up |

|  |
| --- |
| 2185 |
| 163 |
| (39-615) |
|  |

 | 0.62[0.47;0.83] | 0 |
| Stead LF, 2017 | Smoking cessation  | Group | Active comparator | Smoking cessation |

|  |
| --- |
| 1379 |
| 273 |
| (64-1042) |
|  |

 | 0.83[0.5;1.37] | 0 |
| Schuetz P, 2017 | Acute respiratory tract infections  | Procalcitonin algorithm | No added intervention i.e. “usual care” | Mortality  |

|  |
| --- |
| 10046 |
| 185,5 |
| (27-1546) |
|  |

 | 0.89[0.78;1.01] | 0 |
| Gatheral TL, 2017 | Asthma  | PAAP | No added intervention i.e. “usual care” | Number of participants reporting at least 1 exacerbation requiring emergency department visit or hospitalisation. |

|  |
| --- |
| 1260 |
| 140 |
| (74-906) |
|  |

 | 0.72[0.47;1.11] | 4 |
| Normansell R, 2017 | Asthma  | Electronic trackers or reminders | No added intervention i.e. “usual care” | Exacerbations requiring OCS (people with at least 1) |

|  |
| --- |
| 307 |
| 73 |
| (26-208) |
|  |

 | 0.86[0.38;1.95] | 17 |
| Chamberlain C, 2017 | Smoking cessation (pregnant women) | All experimental intervention  | No added intervention i.e. “usual care” | Abstinence in late pregnancy |

|  |
| --- |
| 6664 |
| 143,5 |
| (60-1090) |
|  |

 | 0.59[0.44;0.8] | 63 |
| Stacey D, 2017 | Decision aids  | Decision aid  | No added intervention i.e. “usual care” | Accurate risk perceptions |

|  |
| --- |
| 704 |
| 204 |
| (170-330) |
|  |

 | 0.07[0.01;0.51] | 90 |
| Schuit E, 2017 | Smoking cessation  | Active NRT | Active comparator | Six-Month Abstinence |

|  |
| --- |
| 552 |
| 193 |
| (58-301) |
|  |

 | 0.9[0.39;2.08] | 48 |
| van Driel ML, 2016  | Lipid-lowering medication adherence  | Intensified  | No added intervention i.e. “usual care” | Medication adherence at ≤ 6 months |

|  |
| --- |
| 5988 |
| 198 |
| (30-4548) |
|  |

 | 0.51[0.29;0.89] | 82 |
| Linde K, 2016 | Prevention of tension type headache  | Acupuncture | Sham comparator | Response  |

|  |
| --- |
| 703 |
| 132 |
| (30-409) |
|  |

 | 0.63[0.46;-0.85] | 0 |
| Heal CF, 2016 | Preventing surgical site infection | Topical antibiotic  | Placebo/no treatment | Surgical site infection  |

|  |
| --- |
| 2310 |
| 327 |
| (92-972) |
|  |

 | 0.46[0.33;0.65] | 0 |
| Heneghan CJ, 2016 | Self-management of oral anticoagulation | Self-management  | No added intervention i.e. “usual care” | Major haemorrhage |

|  |
| --- |
| 2233 |
| 317,5 |
| (49-737) |
|  |

 | 0.68[0.42;1.08] | 0 |
| Stead LF, 2016 | Smoking cessation  | Combined intervention  | Usual care/active control | Cessation at longest follow up  |

|  |
| --- |
| 7186 |
| 205 |
| (64-1207) |
|  |

 | 0.46[0.36;0.6] | 51 |
| Posadzki P, 2016 | Management of long term conditions  | ATSC | Other/no call/usual care | Smoking abstinence  |

|  |
| --- |
| 2145 |
| 725 |
| (397-1023) |
|  |

 | 0.75[0.57;0.98] | 34 |
| Martineau AR, 2016 | Asthma  | Vitamin D | Placebo | People with one or more exacerbations requiring systemic corticosteroids |

|  |
| --- |
| 933 |
| 89 |
| (22-408) |
|  |

 | 0.76[0.52;1.13] | 0 |
| Petsky HL, 2016 | Asthma  | FeNO strategy  | No added intervention i.e. “usual care” | Number of participants who had ≥ 1 exacerbations over study period |

|  |
| --- |
| 911 |
| 200,5 |
| (118-392) |

 | 0.54[0.4;0.73] | 0 |
| Kew KM, 2016 | Asthma  | Telemonitoring + feedback  | No added intervention i.e. “usual care” | Exacerbations requiring hospital admission |

|  |
| --- |
| 795 |
| 78 |
| (44-281) |
|  |

 | 0.57[0.23;1.43] | 26 |
| Venekamp RP, 2015 | Acute otitis media in children  | ATB | Placebo | Pain  |

|  |
| --- |
| 947 |
| 232,5 |
| (165-317) |
|  |

 | 0.92[0.45;1.87] | 57 |
| Reilly S, 2015 | People with dementia  | Case management  | No added intervention i.e. “usual care” | Institutionalised |

|  |
| --- |
| 317 |
| 102 |
| (81-134) |
|  |

 | 2.49[0.66;9.49] | 0 |
|

|  |
| --- |
| **Hilton MP, 2014** |
|  |
|  |
|  |

 | Benign paroxysmal positional vertigo | Epley  | Placebo | Complete resolution of vertigo symptoms  |

|  |
| --- |
| 273 |
| 50 |
| 33 |
| (79-273) |
|  |

 | 0.2[0.07;0.57] | 71 |
| Zwerink M, 2014 | COPD | Self-management  | No added intervention i.e. “usual care” | Respiratory-related hospital admissions |

|  |
| --- |
| 189 |
| 75 |
| (38-76) |
|  |

 | 0.99[0.36;2.73] | 0 |
| Purgato M, 2014 | Depression | Paroxetine  | Active comparator | Failure to respond at endpoint |

|  |
| --- |
| 1093 |
| 90 |
| (40-217) |
|  |

 | 1.03[0.81;1.31] | 0 |
| Venekamp RP, 2014 | Acute sinusitis | Oral corticosteroids  | Placebo/active comparator  | Proportion of patients with resolution or improved symptoms  |

|  |
| --- |
| 1043 |
| 203 |
| (42-417) |
|  |

 | 0.48[0.3;0.78] | 66 |
| Stead LF, 2013 | Smoking cessation  | Physician advice  | No added intervention i.e. “usual care” | smoking cessation at longest follow up  |

|  |
| --- |
| 11870 |
| 530 |
| (191-3128) |
|  |

 | 0.5[0.36;0.68] | 51 |
| Kenealy T, 2013 | Common cold and acute purulent rhinitis | Antibiotic  | Placebo | Persisting symptoms 1 to 7 days |

|  |
| --- |
| 637 |
| 261 |
| (88-288) |
|  |

 | 2.16[0.51;9.09] | 83 |
| Gurol‐Urganci I, 2013 | Attendance at healthcare appointments  | SMS reminders  | No added intervention i.e. “usual care” | Attendance rate at healthcare appointments  |

|  |
| --- |
| 3609 |
| 664 |
| (415-1234) |
|  |

 | 0.69[0.56;0.84] | 33 |
| Timmer A, 2013 | Acute respiratory tract infections | p. sidoides  | Placebo | Failure to resolve key symptom by day seven: sputum |

|  |
| --- |
| 746 |
| 135 |
| (124-217) |
|  |

 | 0.37[0.26;0.54] | 15 |
| Dennis CL, 2013 | Post-partum depression | All psychosocial and psychological interventions | No added intervention i.e. “usual care” | Depressive symptomatology at final study assessment |

|  |
| --- |
| 5378 |
| 353 |
| (103-1401) |
|  |

 | 0.62[0.42;0.92] | 79 |
| Magni LR, 2013 | Depression  | Fluoxetine  | Active comparator | Failure to respond  |

|  |
| --- |
| 446 |
| 84 |
| (26-157) |
|  |

 | 1.09 [0.62;1.9] | 44 |
| Koning S, 2012 | Impetigo  | Topical antibiotic  | Placebo | Cure/improvement  |

|  |
| --- |
| 293 |
| 102 |
| (35-156) |
|  |

 | 0.15[0.09;0.26] | 0 |
| Gillespie LD, 2012 | Prevention of falls in older people  | Multifactorial intervention  | No added intervention i.e. “usual care” | Number of fallers  |

|  |
| --- |
| 2890 |
| 272,5 |
| (92-650) |
|  |

 | 0.94[0.67;1.32] | 69 |
| Sheikh A, 2012 | Acute bacterial conjunctivitis | Antibiotic  | Placebo | Microbiological remission  |

|  |
| --- |
| 443 |
| 143 |
| (50-250) |
|  |

 | 0.41[0.21;0.8] | 55 |
| De Sutter AIM, 2012 | Common cold  | Antihistamine-decongestant | Placebo/active comparator | Global evaluation  |

|  |
| --- |
| 403 |
| 116 |
| (83-204) |
|  |

 | 3.41[1.35;8.6] | 76 |
| Leucht C, 2012 | Major depressive disorder | Amitriptyline  | Placebo | Response |

|  |
| --- |
| 251 |
| 47 |
| (20-100) |
|  |

 | 0.28[0.16;0.5] | 0 |
| Kwok CS, 2012 | Cutaneous warts | Topical salicylic acid  | Placebo/no treatment | Cure rate all studies all sites |

|  |
| --- |
| 486 |
| 56,5 |
| (20-164) |
|  |

 | 0.35[0.22;0.54] | 4 |
| Edmonds ML, 2012 | Asthma  | ICS | Active comparator | Asthma relapse  |

|  |
| --- |
| 684 |
| 129,5 |
| (22-403) |
|  |

 | 1[0.66;1.52] | 0 |
| Ruepert L, 2011 | Irritation bowel syndrome  | Antidepressant | Placebo | successfully treated patients with IBS |

|  |
| --- |
| 870 |
| 103 |
| (68-233) |
|  |

 | 0.2[0.09;0.47] | 62 |
| Watanabe N, 2011 | Depression  | Mirtazapine  | Active comparator | Response at the end of the acute phase treatment  |

|  |
| --- |
| 1226 |
| 197 |
| (40-251) |
|  |

 | 0.91 [0.72;1.14] | 0 |
| Everett T, 2011 | Cervical screening | Invitation  | No added intervention i.e. “usual care” | Uptake of screening |

|  |
| --- |
| 3004 |
| 354 |
| (196-1794) |
| 1794 |

 | 0.54[0.44;0.67] | 0 |
| Cahill K, 2010 | Smoking cessation  | Any staged intervention  | No added intervention i.e. “usual care” | Abstinence at longest follow up  |

|  |
| --- |
| 2629 |
| 518,5 |
| (93-1499) |
|  |

 | 0.48[0.26;0.89] | 53 |
| Omori IM, 2010 | Depression  | Fluvoxamine  | Active comparator | Response (acute phase)  |

|  |
| --- |
| 345 |
| 63,5 |
| (23-86) |
|  |

 | 0.88[0.55;1.39] | 0 |
| Kilburn SA, 2010 | Cellulitis and erysipelas  | Newer cephalosporin  | Active comparator | Symptom free/reduced at the end of treatment  |

|  |
| --- |
| 153 |
| 45 |
| (34-74) |
|  |

 | 1.22[0.37;3.99] | 0 |
| Linde K, 2008 | Depression | Hypericum | Placebo | Responder  |

|  |
| --- |
| 338 |
| 97 |
| (88-153) |
|  |

 | 0.47[0.29;0.74] | 0 |
| Hunot V, 2007 | Generalised anxiety disorders  | Psychological therapies  | No added intervention i.e. “usual care” | Clinical response at post-treatment  |

|  |
| --- |
| 159 |
| 49 |
| (30-80) |
|  |

 | 5.47[2.36;12.68] | 0 |
| Guaiana G, 2007 | Depression  | Amitriptyline  | Active comparator | Responders (ITT) |

|  |
| --- |
| 2050 |
| 48 |
| (14-365) |
|  |

 | 0.77[0.6;1] | 31 |
| Gilbody S, 2005 | Depression  | Management of depression following feedback | No added intervention i.e. “usual care” | Any intervention for depression  |

|  |
| --- |
| 1208 |
| 221 |
| (88-454) |
|  |

 | 0.58[0.25;1.33] | 89 |
| Furukawa TA, 2003 | Depression  | Low dosage TCA | Placebo | Depression improved  |

|  |
| --- |
| 151 |
| 37,5 |
| (22-54) |
|  |

 | 0.66[0.33;1.3] | 0 |
| van Tulder MW, 2003 | Low back pain  | Muscle relaxant (non BZD) | Placebo | Pain  |

|  |
| --- |
| 254 |
| 108 |
| (30-116) |
|  |

 | 0.51[0.13;2.05] | 61 |
| Gibson PG, 2002 | Asthma | Self-management  | No added intervention i.e. “usual care” | ER Visits  |

|  |
| --- |
| 1551 |
| 211 |
| (56-593) |
|  |

 | 0.95[0.71;1.26] | 0 |
| DiGuiseppi C, 2001 | Smoking cessation  | Smoke alarm | No added intervention i.e. “usual care” | Final smoke alarm ownership |

|  |
| --- |
| 1783 |
| 358 |
| (123-944) |
|  |

 | 0.82[0.38;1.79] | 68 |