Supplementary 1– search strategies

Searches run on the 17th of April 2019 in PubMed and Cochrane CENTRAL.

Antibiotics for skin and soft tissue (SSTI) diseases

PubMed search

("Anti-Bacterial Agents"[Mesh] OR "Macrolides"[Mesh] OR "beta-Lactams"[Mesh] OR "Fluoroquinolones"[Mesh] OR "Sulfonamides"[Mesh] OR "Tetracyclines"[Mesh] OR "Aminoglycosides"[Mesh] OR Antibacterial[tiab] OR Antibacterials[tiab] OR Antibiotics[tiab] OR Antibiotic[tiab] OR Macrolides[tiab] OR Macrolide[tiab] OR beta-Lactams[tiab] OR Fluoroquinolones[tiab] OR Sulfonamides[tiab] OR Tetracyclines[tiab] OR Aminoglycosides[tiab] OR Antimicrobial[tiab] OR Antimicrobials[tiab] OR Penicillin[tiab] OR Penicillins[tiab] OR Methicillin[tiab] OR ampicillin[tiab] OR azithromycin[tiab] OR Cephalexin[tiab] OR Maytansine[tiab] OR Mepartricin[tiab] OR Miocamycin[tiab] OR Natamycin[tiab] OR Nystatin[tiab] OR Oleandomycin[tiab] OR Troleandomycin[tiab] OR Oligomycins[tiab] OR Rutamycin[tiab] OR Sirolimus[tiab] OR Everolimus[tiab] OR Tacrolimus[tiab] OR Tylosin[tiab] OR Amphotericin[tiab] OR Antimycin[tiab] OR Brefeldin [tiab] OR Bryostatins [tiab] OR Candicidin[tiab] OR Epothilones[tiab] OR Erythromycin[tiab] OR Azithromycin[tiab] OR Clarithromycin[tiab] OR Ketolides[tiab] OR Roxithromycin[tiab] OR Filipin[tiab] OR Ivermectin[tiab] OR Josamycin[tiab] OR Leucomycins[tiab] OR Kitasamycin[tiab] OR Spiramycin[tiab] OR Carbapenems[tiab] OR Thienamycins[tiab] OR Cephalosporins[tiab] OR Cefamandole[tiab] OR Cefazolin[tiab] OR Cefonicid[tiab] OR Cefsulodin[tiab] OR Cephacetrile[tiab] OR Cephalexin[tiab] OR Cephaloridine[tiab] OR Cephamycins[tiab] OR Clavulanic[tiab] OR Monobactams[tiab] OR Aztreonam[tiab] OR Moxalactam[tiab] OR Amdinocillin[tiab] OR Cyclacillin[tiab] OR Methicillin[tiab] OR Nafcillin[tiab] OR Oxacillin[tiab] OR Penicillanic[tiab] OR Sulbactam[tiab] OR Ticarcillin[tiab] OR Amoxicillin[tiab] OR Ciprofloxacin[tiab] OR Fleroxacin[tiab] OR Enoxacin[tiab] OR Norfloxacin[tiab] OR Ofloxacin[tiab] OR Levofloxacin[tiab] OR Pefloxacin[tiab])

AND

("Placebos"[Mesh] OR Placebos[tiab] OR Placebo[tiab] OR Placeboes[tiab] OR “Sham treatment”[tiab] OR “No treatment”[tiab])

AND

(Erysipelas[Mesh] OR Erysipelas[tiab] OR "Skin Diseases, Infectious"[Mesh] OR Cellulitis[Mesh] OR Cellulitis[tiab] OR Impetigo[tiab] OR Impetigo[Mesh] OR "Soft Tissue Infections"[Mesh] OR "Holy fire”[tiab] OR "st anthony's fire"[tiab] OR "Soft Tissue Infections"[tiab] OR "Soft Tissue Infection"[tiab] OR "Skin infections"[tiab] OR "Skin infection"[tiab] OR ((Staphylococcus[Mesh] OR staphylococcus[tiab] OR Streptococcus[Mesh] OR streptococcus[tiab]) AND (Skin[Mesh] OR Skin[tiab])))

AND

(Randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized[tiab] OR randomized[tiab] OR placebo[tiab] OR "drug therapy"[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (Animals[Mesh] not (Animals[Mesh] and Humans[Mesh]))

Cochrane CENTRAL search

(([mh "Anti-Bacterial Agents"] OR [mh Macrolides] OR [mh beta-Lactams] OR [mh Fluoroquinolones] OR [mh Sulfonamides] OR [mh Tetracyclines] OR [mh Aminoglycosides] OR Antibacterial:ti,ab OR Antibacterials:ti,ab OR Antibiotics:ti,ab OR Antibiotic:ti,ab OR Macrolides:ti,ab OR Macrolide:ti,ab OR beta-Lactams:ti,ab OR Fluoroquinolones:ti,ab OR Sulfonamides:ti,ab OR Tetracyclines:ti,ab OR Aminoglycosides:ti,ab OR Antimicrobial:ti,ab OR Antimicrobials:ti,ab OR Penicillin:ti,ab OR Penicillins:ti,ab OR Methicillin:ti,ab OR ampicillin:ti,ab OR azithromycin:ti,ab OR Cephalexin:ti,ab OR Maytansine:ti,ab OR Mepartricin:ti,ab OR Miocamycin:ti,ab OR Natamycin:ti,ab OR Nystatin:ti,ab OR Oleandomycin:ti,ab OR Troleandomycin:ti,ab OR Oligomycins:ti,ab OR Rutamycin:ti,ab OR Sirolimus:ti,ab OR Everolimus:ti,ab OR Tacrolimus:ti,ab OR Tylosin:ti,ab OR Amphotericin:ti,ab OR Antimycin:ti,ab OR Brefeldin:ti,ab OR Bryostatins:ti,ab OR Candicidin:ti,ab OR Epothilones:ti,ab OR Erythromycin:ti,ab OR Azithromycin:ti,ab OR Clarithromycin:ti,ab OR Ketolides:ti,ab OR Roxithromycin:ti,ab OR Filipin:ti,ab OR Ivermectin:ti,ab OR Josamycin:ti,ab OR Leucomycins:ti,ab OR Kitasamycin:ti,ab OR Spiramycin:ti,ab OR Carbapenems:ti,ab OR Thienamycins:ti,ab OR Cephalosporins:ti,ab OR Cefamandole:ti,ab OR Cefazolin:ti,ab OR Cefonicid:ti,ab OR Cefsulodin:ti,ab OR Cephacetrile:ti,ab OR Cephalexin:ti,ab OR Cephaloridine:ti,ab OR Cephamycins:ti,ab OR Clavulanic:ti,ab OR Monobactams:ti,ab OR Aztreonam:ti,ab OR Moxalactam:ti,ab OR Amdinocillin:ti,ab OR Cyclacillin:ti,ab OR Methicillin:ti,ab OR Nafcillin:ti,ab OR Oxacillin:ti,ab OR Penicillanic:ti,ab OR Sulbactam:ti,ab OR Ticarcillin:ti,ab OR Amoxicillin:ti,ab OR Ciprofloxacin:ti,ab OR Fleroxacin:ti,ab OR Enoxacin:ti,ab OR Norfloxacin:ti,ab OR Ofloxacin:ti,ab OR Levofloxacin:ti,ab OR Pefloxacin:ti,ab))

AND

(([mh Placebos] OR Placebos:ti,ab OR Placebo:ti,ab OR Placeboes:ti,ab OR "Sham treatment":ti,ab OR "No treatment":ti,ab))

AND

(([mh Erysipelas] OR Erysipelas:ti,ab OR [mh "Skin Diseases, Infectious"] OR [mh Cellulitis] OR Cellulitis:ti,ab OR Impetigo:ti,ab OR [mh Impetigo] OR [mh "Soft Tissue Infections"] OR "Holy fire":ti,ab OR "st anthony's fire":ti,ab OR "Soft Tissue Infections":ti,ab OR "Soft Tissue Infection":ti,ab OR "Skin infections":ti,ab OR "Skin infection":ti,ab OR (([mh Staphylococcus] OR staphylococcus:ti,ab OR [mh Streptococcus] OR streptococcus:ti,ab) AND ([mh Skin] OR Skin:ti,ab))))

Antibiotics for UTIs

PubMed search

("Anti-Bacterial Agents"[Mesh] OR "Macrolides"[Mesh] OR "beta-Lactams"[Mesh] OR "Fluoroquinolones"[Mesh] OR "Sulfonamides"[Mesh] OR "Tetracyclines"[Mesh] OR "Aminoglycosides"[Mesh] OR Antibacterial[tiab] OR Antibacterials[tiab] OR Antibiotics[tiab] OR Antibiotic[tiab] OR Macrolides[tiab] OR Macrolide[tiab] OR beta-Lactams[tiab] OR Fluoroquinolones[tiab] OR Sulfonamides[tiab] OR Tetracyclines[tiab] OR Aminoglycosides[tiab] OR Antimicrobial[tiab] OR Antimicrobials[tiab] OR Penicillin[tiab] OR Penicillins[tiab] OR Methicillin[tiab] OR ampicillin[tiab] OR azithromycin[tiab] OR Cephalexin[tiab] OR Maytansine[tiab] OR Mepartricin[tiab] OR Miocamycin[tiab] OR Natamycin[tiab] OR Nystatin[tiab] OR Oleandomycin[tiab] OR Troleandomycin[tiab] OR Oligomycins[tiab] OR Rutamycin[tiab] OR Sirolimus[tiab] OR Everolimus[tiab] OR Tacrolimus[tiab] OR Tylosin[tiab] OR Amphotericin[tiab] OR Antimycin[tiab] OR Brefeldin [tiab] OR Bryostatins [tiab] OR Candicidin[tiab] OR Epothilones[tiab] OR Erythromycin[tiab] OR Azithromycin[tiab] OR Clarithromycin[tiab] OR Ketolides[tiab] OR Roxithromycin[tiab] OR Filipin[tiab] OR Ivermectin[tiab] OR Josamycin[tiab] OR Leucomycins[tiab] OR Kitasamycin[tiab] OR Spiramycin[tiab] OR Carbapenems[tiab] OR Thienamycins[tiab] OR Cephalosporins[tiab] OR Cefamandole[tiab] OR Cefazolin[tiab] OR Cefonicid[tiab] OR Cefsulodin[tiab] OR Cephacetrile[tiab] OR Cephalexin[tiab] OR Cephaloridine[tiab] OR Cephamycins[tiab] OR Clavulanic[tiab] OR Monobactams[tiab] OR Aztreonam[tiab] OR Moxalactam[tiab] OR Amdinocillin[tiab] OR Cyclacillin[tiab] OR Methicillin[tiab] OR Nafcillin[tiab] OR Oxacillin[tiab] OR Penicillanic[tiab] OR Sulbactam[tiab] OR Ticarcillin[tiab] OR Amoxicillin[tiab] OR Ciprofloxacin[tiab] OR Fleroxacin[tiab] OR Enoxacin[tiab] OR Norfloxacin[tiab] OR Ofloxacin[tiab] OR Levofloxacin[tiab] OR Pefloxacin[tiab])

AND

("Placebos"[Mesh] OR Placebos[tiab] OR Placebo[tiab] OR Placeboes[tiab] OR “Sham treatment”[tiab] OR “No treatment”[tiab])

AND

("Urinary Tract Infections"[Mesh] OR “Urinary Tract Infections”[tiab] OR “Urinary Tract Infection”[tiab] OR UTIs[tiab] OR UTI[tiab] OR Cystitis[tiab])

AND

(Randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized[tiab] OR randomized[tiab] OR placebo[tiab] OR "drug therapy"[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (Animals[Mesh] not (Animals[Mesh] and Humans[Mesh]))

Cochrane CENTRAL search

(([mh "Anti-Bacterial Agents"] OR [mh Macrolides] OR [mh beta-Lactams] OR [mh Fluoroquinolones] OR [mh Sulfonamides] OR [mh Tetracyclines] OR [mh Aminoglycosides] OR Antibacterial:ti,ab OR Antibacterials:ti,ab OR Antibiotics:ti,ab OR Antibiotic:ti,ab OR Macrolides:ti,ab OR Macrolide:ti,ab OR beta-Lactams:ti,ab OR

Fluoroquinolones:ti,ab OR Sulfonamides:ti,ab OR Tetracyclines:ti,ab OR Aminoglycosides:ti,ab OR Antimicrobial:ti,ab OR Antimicrobials:ti,ab OR Penicillin:ti,ab OR Penicillins:ti,ab OR Methicillin:ti,ab OR ampicillin:ti,ab OR azithromycin:ti,ab OR Cephalexin:ti,ab OR Maytansine:ti,ab OR Mepartricin:ti,ab OR Miocamycin:ti,ab OR Natamycin:ti,ab OR Nystatin:ti,ab OR Oleandomycin:ti,ab OR Troleandomycin:ti,ab OR Oligomycins:ti,ab OR Rutamycin:ti,ab OR Sirolimus:ti,ab OR Everolimus:ti,ab OR Tacrolimus:ti,ab OR Tylosin:ti,ab OR Amphotericin:ti,ab OR Antimycin:ti,ab OR Brefeldin:ti,ab OR Bryostatins:ti,ab OR Candicidin:ti,ab OR Epothilones:ti,ab OR Erythromycin:ti,ab OR Azithromycin:ti,ab OR Clarithromycin:ti,ab OR Ketolides:ti,ab OR Roxithromycin:ti,ab OR Filipin:ti,ab OR Ivermectin:ti,ab OR Josamycin:ti,ab OR Leucomycins:ti,ab OR Kitasamycin:ti,ab OR Spiramycin:ti,ab OR Carbapenems:ti,ab OR Thienamycins:ti,ab OR Cephalosporins:ti,ab OR Cefamandole:ti,ab OR Cefazolin:ti,ab OR Cefonicid:ti,ab OR Cefsulodin:ti,ab OR Cephacetrile:ti,ab OR Cephalexin:ti,ab OR Cephaloridine:ti,ab OR Cephamycins:ti,ab OR Clavulanic:ti,ab OR Monobactams:ti,ab OR Aztreonam:ti,ab OR Moxalactam:ti,ab OR Amdinocillin:ti,ab OR Cyclacillin:ti,ab OR Methicillin:ti,ab OR Nafcillin:ti,ab OR Oxacillin:ti,ab OR Penicillanic:ti,ab OR Sulbactam:ti,ab OR Ticarcillin:ti,ab OR Amoxicillin:ti,ab OR Ciprofloxacin:ti,ab OR Fleroxacin:ti,ab OR Enoxacin:ti,ab OR Norfloxacin:ti,ab OR Ofloxacin:ti,ab OR Levofloxacin:ti,ab OR Pefloxacin:ti,ab))

AND

(([mh Placebos] OR Placebos:ti,ab OR Placebo:ti,ab OR Placeboes:ti,ab OR "Sham treatment":ti,ab OR "No treatment":ti,ab))

AND

(([mh "Urinary Tract Infections"] OR "Urinary Tract Infections":ti,ab OR "Urinary Tract Infection":ti,ab OR UTIs:ti,ab OR UTI:ti,ab OR Cystitis:ti,ab))

Antibiotics for ARIs

("Anti-Bacterial Agents"[Mesh] OR "Macrolides"[Mesh] OR "beta-Lactams"[Mesh] OR "Fluoroquinolones"[Mesh] OR "Sulfonamides"[Mesh] OR "Tetracyclines"[Mesh] OR "Aminoglycosides"[Mesh] OR Antibacterial[tiab] OR Antibacterials[tiab] OR Antibiotics[tiab] OR Antibiotic[tiab] OR Macrolides[tiab] OR Macrolide[tiab] OR beta-Lactams[tiab] OR Fluoroquinolones[tiab] OR Sulfonamides[tiab] OR Tetracyclines[tiab] OR Aminoglycosides[tiab] OR Antimicrobial[tiab] OR Antimicrobials[tiab] OR Penicillin[tiab] OR Penicillins[tiab] OR Methicillin[tiab] OR ampicillin[tiab] OR azithromycin[tiab] OR Cephalexin[tiab] OR Maytansine[tiab] OR Mepartricin[tiab] OR Miocamycin[tiab] OR Natamycin[tiab] OR Nystatin[tiab] OR Oleandomycin[tiab] OR Troleandomycin[tiab] OR Oligomycins[tiab] OR Rutamycin[tiab] OR Sirolimus[tiab] OR Everolimus[tiab] OR Tacrolimus[tiab] OR Tylosin[tiab] OR Amphotericin[tiab] OR Antimycin[tiab] OR Brefeldin [tiab] OR Bryostatins [tiab] OR Candicidin[tiab] OR Epothilones[tiab] OR Erythromycin[tiab] OR Azithromycin[tiab] OR Clarithromycin[tiab] OR Ketolides[tiab] OR Roxithromycin[tiab] OR Filipin[tiab] OR Ivermectin[tiab] OR Josamycin[tiab] OR Leucomycins[tiab] OR Kitasamycin[tiab] OR Spiramycin[tiab] OR Carbapenems[tiab] OR Thienamycins[tiab] OR Cephalosporins[tiab] OR Cefamandole[tiab] OR Cefazolin[tiab] OR Cefonicid[tiab] OR

Cefsulodin[tiab] OR Cephacetrile[tiab] OR Cephalexin[tiab] OR Cephaloridine[tiab] OR Cephamycins[tiab] OR Clavulanic[tiab] OR Monobactams[tiab] OR Aztreonam[tiab] OR Moxalactam[tiab] OR Amdinocillin[tiab] OR Cyclacillin[tiab] OR Methicillin[tiab] OR Nafcillin[tiab] OR Oxacillin[tiab] OR Penicillanic[tiab] OR Sulbactam[tiab] OR Ticarcillin[tiab] OR Amoxicillin[tiab] OR Ciprofloxacin[tiab] OR Fleroxacin[tiab] OR Enoxacin[tiab] OR Norfloxacin[tiab] OR Ofloxacin[tiab] OR Levofloxacin[tiab] OR Pefloxacin[tiab])

AND

("Placebos"[Mesh] OR Placebos[tiab] OR Placebo[tiab] OR Placeboes[tiab] OR “Sham treatment”[tiab] OR “No treatment”[tiab] OR “No active treatment”[tiab])

AND

("Respiratory Tract Infections"[Mesh] OR Nasopharyngitis[Mesh] OR Rhinitis[Mesh] OR Sinusitis[Mesh] OR Pharyngitis[Mesh] OR Laryngitis[Mesh] OR bronchitis[Mesh] OR bronchiolitis[Mesh] OR "bronchiolitis, viral"[Mesh] OR Pleurisy[Mesh] OR Cough[Mesh] OR Sneezing[Mesh] OR Pneumonia[Mesh] OR "Respiratory Sounds"[Mesh] OR "Otitis Media"[Mesh] OR Earache[Mesh] OR "Influenza, Human"[Mesh] OR "Common Cold"[Mesh] OR “Respiratory infection”[tiab] OR “Respiratory infections”[tiab] OR “Respiratory Tract Infections"[tiab] OR “Respiratory Tract Infection"[tiab] OR “Respiratory inflammation”[tiab] OR “Respiratory tract inflammation”[tiab] OR urti[tiab] OR lrti[tiab] OR ari[tiab] OR nasopharyngitis[tiab] OR rhinopharyngitis[tiab] OR sinusitis[tiab] OR nasosinusitis[tiab] OR rhinosinusitis[tiab] OR rhinitis[tiab] OR rhinorrhoea[tiab] OR rhinorrhea[tiab] OR pharyngitis[tiab] OR "sore throat"[tiab] OR Tonsillitis[tiab] OR laryngitis[tiab] OR croup[tiab] OR pseudocroup[tiab] OR tracheobronchitis[tiab] OR laryngotracheobronchitis[tiab] OR bronchitis[tiab] OR bronchiolitis[tiab] OR pneumonia[tiab] OR pleuropneumonia[tiab] OR bronchopneumonia[tiab] OR pleurisy[tiab] OR cough[tiab] OR Wheeze[tiab] OR Wheezing[tiab] OR "otitis media"[tiab] OR aom[tiab] OR ome[tiab] OR earache[tiab] OR influenza[tiab] OR flu[tiab] OR "common cold"[tiab] OR "common colds"[tiab])

AND

(Randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized[tiab] OR randomized[tiab] OR placebo[tiab] OR "drug therapy"[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (Animals[Mesh] not (Animals[Mesh] and Humans[Mesh]))

Cochrane CENTRAL search

(([mh "Anti-Bacterial Agents"] OR [mh Macrolides] OR [mh beta-Lactams] OR [mh Fluoroquinolones] OR [mh Sulfonamides] OR [mh Tetracyclines] OR [mh Aminoglycosides] OR Antibacterial:ti,ab OR Antibacterials:ti,ab OR Antibiotics:ti,ab OR Antibiotic:ti,ab OR Macrolides:ti,ab OR Macrolide:ti,ab OR beta-Lactams:ti,ab OR Fluoroquinolones:ti,ab OR Sulfonamides:ti,ab OR Tetracyclines:ti,ab OR Aminoglycosides:ti,ab OR Antimicrobial:ti,ab OR Antimicrobials:ti,ab OR Penicillin:ti,ab OR Penicillins:ti,ab OR Methicillin:ti,ab OR ampicillin:ti,ab OR azithromycin:ti,ab OR Cephalexin:ti,ab OR Maytansine:ti,ab OR Mepartricin:ti,ab OR

Miocamycin:ti,ab OR Natamycin:ti,ab OR Nystatin:ti,ab OR Oleandomycin:ti,ab OR Troleandomycin:ti,ab OR Oligomycins:ti,ab OR Rutamycin:ti,ab OR Sirolimus:ti,ab OR Everolimus:ti,ab OR Tacrolimus:ti,ab OR Tylosin:ti,ab OR Amphotericin:ti,ab OR Antimycin:ti,ab OR Brefeldin:ti,ab OR Bryostatins:ti,ab OR Candicidin:ti,ab OR Epothilones:ti,ab OR Erythromycin:ti,ab OR Azithromycin:ti,ab OR Clarithromycin:ti,ab OR Ketolides:ti,ab OR Roxithromycin:ti,ab OR Filipin:ti,ab OR Ivermectin:ti,ab OR Josamycin:ti,ab OR Leucomycins:ti,ab OR Kitasamycin:ti,ab OR Spiramycin:ti,ab OR Carbapenems:ti,ab OR Thienamycins:ti,ab OR Cephalosporins:ti,ab OR Cefamandole:ti,ab OR Cefazolin:ti,ab OR Cefonicid:ti,ab OR Cefsulodin:ti,ab OR Cephacetrile:ti,ab OR Cephalexin:ti,ab OR Cephaloridine:ti,ab OR Cephamycins:ti,ab OR Clavulanic:ti,ab OR Monobactams:ti,ab OR Aztreonam:ti,ab OR Moxalactam:ti,ab OR Amdinocillin:ti,ab OR Cyclacillin:ti,ab OR Methicillin:ti,ab OR Nafcillin:ti,ab OR Oxacillin:ti,ab OR Penicillanic:ti,ab OR Sulbactam:ti,ab OR Ticarcillin:ti,ab OR Amoxicillin:ti,ab OR Ciprofloxacin:ti,ab OR Fleroxacin:ti,ab OR Enoxacin:ti,ab OR Norfloxacin:ti,ab OR Ofloxacin:ti,ab OR Levofloxacin:ti,ab OR Pefloxacin:ti,ab))

AND

(([mh Placebos] OR Placebos:ti,ab OR Placebo:ti,ab OR Placeboes:ti,ab OR "Sham treatment":ti,ab OR "No treatment":ti,ab OR "No active treatment":ti,ab))

AND

(([mh "Respiratory Tract Infections"] OR [mh Nasopharyngitis] OR [mh Rhinitis] OR [mh Sinusitis] OR [mh Pharyngitis] OR [mh Laryngitis] OR [mh bronchitis] OR [mh bronchiolitis] OR [mh "bronchiolitis, viral"] OR [mh Pleurisy] OR [mh Cough] OR [mh Sneezing] OR [mh Pneumonia] OR [mh "Respiratory Sounds"] OR [mh "Otitis Media"] OR [mh Earache] OR [mh "Influenza, Human"] OR [mh "Common Cold"] OR "Respiratory infection":ti,ab OR "Respiratory infections":ti,ab OR "Respiratory Tract Infections":ti,ab OR "Respiratory Tract Infection":ti,ab OR "Respiratory inflammation":ti,ab OR "Respiratory tract inflammation":ti,ab OR urti:ti,ab OR lrti:ti,ab OR ari:ti,ab OR nasopharyngitis:ti,ab OR rhinopharyngitis:ti,ab OR sinusitis:ti,ab OR nasosinusitis:ti,ab OR rhinosinusitis:ti,ab OR rhinitis:ti,ab OR rhinorrhoea:ti,ab OR rhinorrhea:ti,ab OR pharyngitis:ti,ab OR "sore throat":ti,ab OR Tonsillitis:ti,ab OR laryngitis:ti,ab OR croup:ti,ab OR pseudocroup:ti,ab OR tracheobronchitis:ti,ab OR laryngotracheobronchitis:ti,ab OR bronchitis:ti,ab OR bronchiolitis:ti,ab OR pneumonia:ti,ab OR pleuropneumonia:ti,ab OR bronchopneumonia:ti,ab OR pleurisy:ti,ab OR cough:ti,ab OR Wheeze:ti,ab OR Wheezing:ti,ab OR "otitis media":ti,ab OR aom:ti,ab OR ome:ti,ab OR earache:ti,ab OR influenza:ti,ab OR flu:ti,ab OR "common cold":ti,ab OR "common colds":ti,ab))

Supplementary Box 1 – Data extraction form

Study ID Author – date		
1	Studied condition (and diagnosis)	
2	Country	
3	Sample size	
Risk of bias		
4	Random sequence generation (selection bias)	Low risk Unclear risk High risk
5	Allocation concealment (selection bias)	Low risk Unclear risk High risk
6	Blinding of participants and personnel (performance bias)	Low risk Unclear risk High risk
7	Blinding of outcome assessment (detection bias)	Low risk Unclear risk High risk
8	Incomplete outcome data (attrition bias)	Low risk Unclear risk High risk
9	Selective reporting (reporting bias)	Low risk Unclear risk High risk
10	Other bias	Low risk Unclear risk High risk

Supplementary Box S2 – list of included RCTs

ARI RCTs included:
1. Appelman CL, Claessen JQ, Touw-Otten FW, Hordijk GJ, de Melker RA. Co-amoxiclav in recurrent acute otitis media: placebo controlled study. *BMJ (Clinical research ed).* 1991;303(6815):1450-1452.
2. Awasthi S, Agarwal G, Kabra SK, et al. Does 3-day course of oral amoxycillin benefit children of non-severe pneumonia with wheeze: a multicentric randomized controlled trial. *PloS one.* 2008;3(4):e1991.
3. Bacharier LB, Guilbert TW, Mauger DT, et al. Early Administration of Azithromycin and Prevention of Severe Lower Respiratory Tract Illnesses in Preschool Children With a History of Such Illnesses A Randomized Clinical Trial. *J Jama-Journal of the American Medical Association.* 2015;314(19):2034-2044.
4. Brickfield FX, Carter WH, Johnson RE. Erythromycin in the treatment of acute bronchitis in a community practice. *The Journal of family practice.* 1986;23(2):119-122.
5. Bucher HC, Tschudi P, Young J, et al. Effect of amoxicillin-clavulanate in clinically diagnosed acute rhinosinusitis: a placebo-controlled, double-blind, randomized trial in general practice. *Archives of internal medicine.* 2003;163(15):1793-1798.
6. Burke P, Bain J, Robinson D, Dunleavey J. Acute red ear in children: controlled trial of non-antibiotic treatment in general practice. *BMJ (Clinical research ed).* 1991;303(6802):558-562.
7. Cantekin EI, McGuire TW, Griffith TL. Antimicrobial therapy for otitis media with effusion ('secretory' otitis media). *Jama.* 1991;266(23):3309-3317.
8. Chapple PA, Franklin LM, Paulett JD, et al. Treatment of acute sore throat in general practice; therapeutic trial, with observations on symptoms and bacteriology. *British medical journal.* 1956;1(4969):705-708.
9. Dagnelie CF, van der Graaf Y, De Melker RA. Do patients with sore throat benefit from penicillin? A randomized double-blind placebo-controlled clinical trial with penicillin V in general practice. *The British journal of general practice : the journal of the Royal College of General Practitioners.* 1996;46(411):589-593.
10. Damoiseaux RA, van Balen FA, Hoes AW, Verheij TJ, de Melker RA. Primary care based randomized, double blind trial of amoxicillin versus placebo for acute otitis media in children aged under 2 years. *BMJ (Clinical research ed).* 2000;320(7231):350-354.
11. Darelid J, Lofgren S, Malmvall BE. Erythromycin Treatment Is Beneficial for Longstanding Moraxella-Catarrhalis Associated Cough in Children. *Scandinavian journal of infectious diseases.* 1993;25(3):323-329.
12. De Meyere M, Mervielde Y, Verschraegen G, Bogaert M. Effect of penicillin on the clinical course of streptococcal pharyngitis in general practice. *European journal of clinical pharmacology.* 1992;43(6):581-585.
13. De Sutter AI, De Meyere MJ, Christiaens TC, Van Driel ML, Peersman W, De Maeseneer JM. Does amoxicillin improve outcomes in patients with purulent rhinorrhea? A pragmatic randomized double-blind controlled trial in family practice. *The Journal of family practice.* 2002;51(4):317-323.
14. Dunlay J, Reinhardt R, Roi LD. A placebo-controlled, double-blind trial of erythromycin in adults with acute bronchitis. *The Journal of family practice.* 1987;25(2):137-141.
15. Franks P, Gleiner JA. The treatment of acute bronchitis with trimethoprim and sulfamethoxazole. *The Journal of family practice.* 1984;19(2):185-190.
16. Garbutt JM, Banister C, Spitznagel E, Piccirillo JF. Amoxicillin for acute rhinosinusitis: a randomized controlled trial. *Jama.* 2012;307(7):685-692.
17. Garbutt JM, Goldstein M, Gellman E, Shannon W, Littenberg B. A randomized, placebo-controlled trial of antimicrobial treatment for children with clinically diagnosed acute sinusitis. *Pediatrics.* 2001;107(4):619-625.
18. Ginsburg AS, Mvalo T, Nkwopara E, et al. Placebo vs Amoxicillin for Nonsevere Fast-Breathing Pneumonia in Malawian Children Aged 2 to 59 Months: A Double-blind, Randomized Clinical Noninferiority Trial. *JAMA pediatrics.* 2018.
19. Gordon M, Lovell S, Dugdale AE. The value of antibiotics in minor respiratory illness in children. A controlled trial. *The Medical journal of Australia.* 1974;1(9):304-306.
20. Gottfarb P, Brauner A. Children with persistent cough--outcome with treatment and role of Moraxella catarrhalis? *Scandinavian journal of infectious diseases.* 1994;26(5):545-551.
21. Hadley JA, Mosges R, Desrosiers M, Haverstock D, van Veenhuyzen D, Herman-Gnjidic Z. Moxifloxacin five-day therapy versus placebo in acute bacterial rhinosinusitis. *The Laryngoscope.* 2010;120(5):1057-1062.
22. Hansen JG, Schmidt H, Grinsted P. Randomised, double blind, placebo controlled trial of penicillin V in the treatment of acute maxillary sinusitis in adults in general practice. *Scandinavian journal of primary health care.* 2000;18(1):44-47.

23. Hardy LM, Traisman HS. Antibiotics and chemotherapeutic agents in the treatment of uncomplicated respiratory infections in children; a controlled study. *The Journal of pediatrics.* 1956;48(2):146-156.

24. Haye R, Lingaas E, Hoivik HO, Odegard T. Azithromycin versus placebo in acute infectious rhinitis with clinical symptoms but without radiological signs of maxillary sinusitis. *European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology.* 1998;17(5):309-312.

25. Heikkinen T, Ruuskanen O, Ziegler T, Waris M, Puhakka H. Short-Term Use of Amoxicillin-Clavulanate during Upper Respiratory-Tract Infection for Prevention of Acute Otitis-Media. *J Pediatr-Us.* 1995;126(2):313-316.

26. Hoberman A, Paradise JL, Rockette HE, et al. Treatment of acute otitis media in children under 2 years of age. *The New England journal of medicine.* 2011;364(2):105-115.

27. Howe RW, Millar MR, Coast J, Whitfield M, Peters TJ, Brookes S. A randomized controlled trial of antibiotics on symptom resolution in patients presenting to their general practitioner with a sore throat. *The British journal of general practice : the journal of the Royal College of General Practitioners.* 1997;47(418):280-284.

28. Howie JG, Clark GA. Double-blind trial of early demethylchlortetracycline in minor respiratory illness in general practice. *Lancet (London, England).* 1970;2(7683):1099-1102.

29. Howie VM, Ploussard JH. Efficacy of fixed combination antibiotics versus separate components in otitis media. Effectiveness of erythromycin estrolate, triple sulfonamide, ampicillin, erythromycin estolate- triple sulfonamide, and placebo in 280 patients with acute otitis media under two and one-half years of age. *Clin Pediatr.* 1972;11(4):205-214.

30. Jeppesen F, Illum P. Pivampicillin (Pondocillin) in the treatment of maxillary sinusitis. *Acta oto-laryngologica.* 1972;74(5):375-382.

31. Kaiser L, Lew D, Hirschel B, et al. Effects of antibiotic treatment in the subset of common-cold patients who have bacteria in nasopharyngeal secretions. *Lancet (London, England).* 1996;347(9014):1507-1510.

32. King DE, Williams WC, Bishop L, Shechter A. Effectiveness of erythromycin in the treatment of acute bronchitis. *The Journal of family practice.* 1996;42(6):601-605.

33. Kristo A, Uhari M, Luotonen J, Ilkko E, Koivunen P, Alho OP. Cefuroxime axetil versus placebo for children with acute respiratory infection and imaging evidence of sinusitis: a randomized, controlled trial. *Acta paediatrica (Oslo, Norway : 1992).* 2005;94(9):1208-1213.

34. Krober MS, Bass JW, Michels GN. Streptococcal pharyngitis. Placebo-controlled double-blind evaluation of clinical response to penicillin therapy. *Jama.* 1985;253(9):1271-1274.

35. Le Saux N, Gaboury I, Baird M, et al. A randomized, double-blind, placebo-controlled noninferiority trial of amoxicillin for clinically diagnosed acute otitis media in children 6 months to 5 years of age. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne.* 2005;172(3):335-341.

36. Leelarasamee A, Leowattana W, Tobunluepop P, et al. Amoxicillin for fever and sore throat due to non-exudative pharyngotonsillitis: beneficial or harmful? *International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases.* 2000;4(2):70-74.

37. Lexomboon U, Duangmani C, Kusalasai V, Sunakorn P, Olson LC, Noyes HE. Evaluation of orally administered antibiotics for treatment of upper respiratory infections in Thai children. *The Journal of pediatrics.* 1971;78(5):772-778.

38. Lindbaek M, Hjortdahl P, Johnsen UL. Randomised, double blind, placebo controlled trial of penicillin V and amoxycillin in treatment of acute sinus infections in adults. *BMJ (Clinical research ed).* 1996;313(7053):325-329.

39. Lindbaek M, Kaastad E, Dolvik S, Johnsen U, Laerum E, Hjortdahl P. Antibiotic treatment of patients with mucosal thickening in the paranasal sinuses, and validation of cut-off points in sinus CT. *Rhinology.* 1998;36(1):7-11.

40. Little P, Stuart B, Moore M, et al. Amoxicillin for acute lower-respiratory-tract infection in primary care when pneumonia is not suspected: a 12-country, randomized, placebo-controlled trial. *The Lancet Infectious diseases.* 2013;13(2):123-129.

41. Llor C, Moragas A, Bayona C, et al. Efficacy of anti-inflammatory or antibiotic treatment in patients with non-complicated acute bronchitis and discoloured sputum: randomized placebo controlled trial. *BMJ (Clinical research ed).* 2013;347:f5762.

42. Maeda S, Yamada Y, Nakamura H, Maeda T. Efficacy of antibiotics against influenza-like illness in an influenza epidemic. *Pediatrics international : official journal of the Japan Pediatric Society.* 1999;41(3):274-276.

43. Mandhane PJ, Paredes Zambrano de Silbernagel P, Aung YN, et al. Treatment of preschool children presenting to the emergency department with wheeze with azithromycin: A placebo-controlled randomized trial. *PloS one.* 2017;12(8):e0182411.

44. Marlow RA, Torrez AJ, Jr., Haxby D. The treatment of nonstreptococcal pharyngitis with erythromycin: a preliminary study. *Family medicine.* 1989;21(6):425-427.

45. McDonald CJ, Tierney WM, Hui SL, French ML, Leland DS, Jones RB. A controlled trial of erythromycin in adults with nonstreptococcal pharyngitis. *J Infect Dis.* 1985;152(5):1093-1094.

46. Merenstein D, Whittaker C, Chadwell T, Wegner B, D'Amico F. Are antibiotics beneficial for patients with sinusitis complaints? A randomized double-blind clinical trial. *The Journal of family practice.* 2005;54(2):144-151.

47. Middleton DB, D'Amico F, Merenstein JH. Standardized symptomatic treatment versus penicillin as initial therapy for streptococcal pharyngitis. *The Journal of pediatrics.* 1988;113(6):1089-1094.

48. Mosges R, Spaeth J, Berger K, Dubois F. Topical treatment of rhinosinusitis with fusafungine nasal spray. A double-blind, placebo-controlled, parallel-group study in 20 patients. *Arzneimittel-Forschung.* 2002;52(12):877-883.

49. Mygind N, Meistrup-Larsen KI, Thomsen J, Thomsen VF, Josefsson K, Sorensen H. Penicillin in acute otitis media: a double-blind placebo-controlled trial. *Clinical otolaryngology and allied sciences.* 1981;6(1):5-13.

50. Nduba VN, Mwachari CW, Magaret AS, et al. Placebo found equivalent to amoxicillin for treatment of acute bronchitis in Nairobi, Kenya: a triple blind, randomized, equivalence trial. *Thorax.* 2008;63(11):999-1005.

51. Nelson JD. The effect of penicillin therapy on the symptoms and signs of streptococcal pharyngitis. *Pediatric infectious disease.* 1984;3(1):10-13.

52. Neumark T, Molstad S, Rosen C, et al. Evaluation of phenoxymethylpenicillin treatment of acute otitis media in children aged 2-16. *Scandinavian journal of primary health care.* 2007;25(3):166-171.

53. Norrelund N. [Treatment of sinusitis in general practice. A controlled investigation of pivampicillin (Pondocillin)]. *Ugeskrift for laeger.* 1978;140(45):2792-2795.

54. Petersen K, Phillips RS, Soukup J, Komaroff AL, Aronson M. The effect of erythromycin on resolution of symptoms among adults with pharyngitis not caused by group A streptococcus. *Journal of general internal medicine.* 1997;12(2):95-101.

55. Pichichero M. Antibiotics for acute otitis media: yes or no [Journal: Article]. *JAMA - journal of the american medical association.* 2015;313(3):294-295. doi:10.1001/jama.2014.14990.

56. Randolph MF, Gerber MA, DeMeo KK, Wright L. Effect of antibiotic therapy on the clinical course of streptococcal pharyngitis. *The Journal of pediatrics.* 1985;106(6):870-875.

57. Rantanen T, Arvilommi H. Double-Blind Trial of Doxycycline in Acute Maxillary Sinusitis - Clinical and Bacteriological Study. *Acta oto-laryngologica.* 1973;76(1):58-62.

58. Reinert P, Narcy P, Paliwoda A, Rouffiac E. [Evaluation of tixocortol pivalate-neomycin combination versus ++a placebo excipient in acute rhinopharyngitis in children]. *Annales de pediatrie.* 1991;38(7):503-508.

59. Rwalah M, Rashdan H-A. Short term antibiotics in children with upper respiratory tract infection [Journal: Article]. *Rawal medical journal.* 2011;36(2):133-136. http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/070/CN-01017070/frame.html.

60. Schalen L, Christensen P, Eliasson I, Fex S, Kamme C, Schalen C. Inefficacy of penicillin V in acute laryngitis in adults. Evaluation from results of double-blind study. *The Annals of otology, rhinology, and laryngology.* 1985;94(1 Pt 1):14-17.

61. Schalen L, Kamme C, Eliasson I, Schalen C. ERYTHROMYCIN IN ACUTE LARYNGITIS IN ADULTS *J Annals of Otology Rhinology and Laryngology.* 1993;102(3):209-214.

62. Scherl ER, Riegler SL, Cooper JK. Doxycycline in acute bronchitis: a randomized double-blind trial. *J Ky Med Assoc.* 1987;85(9):539-541.

63. Stalman W, van Essen GA, van der Graaf Y, de Melker RA. The end of antibiotic treatment in adults with acute sinusitis-like complaints in general practice? A placebo-controlled double-blind randomized doxycycline trial. *The British journal of general practice : the journal of the Royal College of General Practitioners.* 1997;47(425):794-799.

64. Stokholm J, Chawes BL, Vissing NH, et al. Azithromycin for episodes with asthma-like symptoms in young children aged 1-3 years: a randomized, double-blind, placebo-controlled trial. *The Lancet Respiratory medicine.* 2016;4(1):19-26.

65. Stott NC, West RR. Randomised controlled trial of antibiotics in patients with cough and purulent sputum. *British medical journal.* 1976;2(6035):556-559.

66. Sutrisna B, Frerichs RR, Reingold AL. Randomized, Controlled Trial of Effectiveness of Ampicillin in Mild Acute Respiratory-Infections in Indonesian Children. *Lancet (London, England).* 1991;338(8765):471-474.

67. Tahtinen PA, Laine MK, Huovinen P, Jalava J, Ruuskanen O, Ruohola A. A placebo-controlled trial of antimicrobial treatment for acute otitis media. *The New England journal of medicine.* 2011;364(2):116-126.

68. Tapiainen T, Kujala T, Renko M, et al. Effect of antimicrobial treatment of acute otitis media on the daily disappearance of middle ear effusion: a placebo-controlled trial. *JAMA pediatrics.* 2014;168(7):635-641.

69. Taylor B, Abbott GD, Kerr MM, Fergusson DM. Amoxycillin and co-trimoxazole in presumed viral respiratory infections of childhood: placebo-controlled trial. *British medical journal.* 1977;2(6086):552-554.

70. Todd JK, Todd N, Damato J, Todd WA. Bacteriology and treatment of purulent nasopharyngitis: a double blind, placebo-controlled evaluation. *Pediatric infectious disease.* 1984;3(3):226-232.

71. van Buchem FL, Knottnerus JA, Schrijnemaekers VJ, Peeters MF. Primary-care-based randomized placebo-controlled trial of antibiotic treatment in acute maxillary sinusitis. *Lancet (London, England).* 1997;349(9053):683-687.

72. Vanbuchem FL, Dunk JHM, Vanthof MA. Therapy of Acute Otitis-Media - Myringotomy, Antibiotics, or Neither - a Double-Blind-Study in Children. *Lancet (London, England).* 1981;2(8252):883-887.

73. Varonen H, Kunnamo I, Savolainen S, et al. Treatment of acute rhinosinusitis diagnosed by clinical criteria or ultrasound in primary care. A placebo-controlled randomized trial. *Scandinavian journal of primary health care.* 2003;21(2):121-126.

74. Verheij TJ, Hermans J, Mulder JD. Effects of doxycycline in patients with acute cough and purulent sputum: a double blind placebo controlled trial. *The British journal of general practice : the journal of the Royal College of General Practitioners.* 1994;44(386):400-404.

75. Wald ER, Chiponis D, Ledesmamedina J. Comparative Effectiveness of Amoxicillin and Amoxicillin-Clavulanate Potassium in Acute Para-Nasal Sinus Infections in Children - a Double-Blind, Placebo-Controlled Trial. *Pediatrics.* 1986;77(6):795-800.

76. Wald ER, Nash D, Eickhoff J. Effectiveness of amoxicillin/clavulanate potassium in the treatment of acute bacterial sinusitis in children. *Pediatrics.* 2009;124(1):9-15.

77. Williamson HA, Jr. A randomized, controlled trial of doxycycline in the treatment of acute bronchitis. *The Journal of family practice.* 1984;19(4):481-486.

78. Williamson IG, Rumsby K, Benge S, et al. Antibiotics and topical nasal steroid for treatment of acute maxillary sinusitis: a randomized controlled trial. *Jama.* 2007;298(21):2487-2496.

79. Zwart S, Rovers MM, de Melker RA, Hoes AW. Penicillin for acute sore throat in children: randomized, double blind trial. *BMJ (Clinical research ed).* 2003;327(7427):1324.

80. Zwart S, Sachs AP, Ruijs GJ, Gubbels JW, Hoes AW, de Melker RA. Penicillin for acute sore throat: randomized double blind trial of seven days versus three days treatment or placebo in adults. *BMJ (Clinical research ed).* 2000;320(7228):150-154.

SSTI RCTs included:

1. Avci O, Tanyildizi T, Kusku E. A comparison between the effectiveness of erythromycin, single-dose clarithromycin and topical fusidic acid in the treatment of erythrasma. *The Journal of dermatological treatment.* 2013;24(1):70-74.

2. Bower M, Bowness P, Shann F. Penicillin in the treatment of skin sores in children. *The Medical journal of Australia.* 1984;140(9):528-530.

3. Breneman DL. USE OF MUPIROCIN OINTMENT IN THE TREATMENT OF SECONDARILY INFECTED DERMATOSES 1990;22(5):886-892.

4. Colin M, Avon P. [Comparative double-blind evaluation of a new topical antibacterial agent, mupirocin, compared with placebo in the treatment of skin and soft tissue infections]. *Pharmatherapeutica.* 1988;5(3):198-203.

5. Daum RS, Miller LG, Immergluck L, et al. A Placebo-Controlled Trial of Antibiotics for Smaller Skin Abscesses. *The New England journal of medicine.* 2017;376(26):2545-2555.

6. Duong M, Markwell S, Peter J, Barenkamp S. Randomized, controlled trial of antibiotics in the management of community-acquired skin abscesses in the pediatric patient. *Ann Emerg Med.* 2010;55(5):401-407.

7. Ewing CI, Ashcroft C, Gibbs AC, Jones GA, Connor PJ, David TJ. Flucloxacillin in the treatment of atopic dermatitis. *Br J Dermatol.* 1998;138(6):1022-1029.

8. Francis NA, Ridd MJ, Thomas-Jones E, et al. A randomized placebo-controlled trial of oral and topical antibiotics for children with clinically infected eczema in the community: the ChildRen with Eczema, Antibiotic Management (CREAM) study. *Health technology assessment (Winchester, England).* 2016;20(19):i-xxiv, 1-84.

9. Gropper S, Albareda N, Chelius K, et al. Ozenoxacin 1% cream in the treatment of impetigo: a multicenter, randomized, placebo- and retapamulin-controlled clinical trial. *Future microbiology.* 2014;9(9):1013-1023.

10. Hamann K, Thorn P. Systemic or local treatment of erythrasma? A comparison between erythromycin tablets and Fucidin cream in general practice. *Scandinavian journal of primary health care.* 1991;9(1):35-39.

11. Koning S, van der Wouden JC, Chosidow O, et al. Efficacy and safety of retapamulin ointment as treatment of impetigo: randomized double-blind multicentre placebo-controlled trial. *Br J Dermatol.* 2008;158(5):1077-1082.

12. Koning S, van Suijlekom-Smit LW, Nouwen JL, et al. Fusidic acid cream in the treatment of impetigo in general practice: double blind randomized placebo controlled trial. *BMJ (Clinical research ed).* 2002;324(7331):203-206.

13. Konopka EA, Kimble EF, Zogans HC, Heyman H. Antimicrobial effectiveness of Locacorten-Vioform cream in Secondary infections of common dermatoses. *Dermatologica.* 1975;151(1):1-8.

14. Llera JL, Levy RC. Treatment of cutaneous abscess: a double-blind clinical study. *Ann Emerg Med.* 1985;14(1):15-19.

15. Rajendran PM, Young D, Maurer T, et al. Randomized, double-blind, placebo-controlled trial of cephalexin for treatment of uncomplicated skin abscesses in a population at risk for community-acquired methicillin-resistant Staphylococcus aureus infection. *Antimicrobial agents and chemotherapy.* 2007;51(11):4044-4048.

16. Rosen T, Albareda N, Rosenberg N, et al. Efficacy and Safety of Ozenoxacin Cream for Treatment of Adult and Pediatric Patients With Impetigo: A Randomized Clinical Trial. *JAMA dermatology.* 2018;154(7):806-813.

17. Schmitz GR, Bruner D, Pitotti R, et al. Randomized controlled trial of trimethoprim-sulfamethoxazole for uncomplicated skin abscesses in patients at risk for community-associated methicillin-resistant Staphylococcus aureus infection. *Ann Emerg Med.* 2010;56(3):283-287.

18. Talan DA, Mower WR, Krishnadasan A, et al. Trimethoprim-Sulfamethoxazole versus Placebo for Uncomplicated Skin Abscess. *The New England journal of medicine.* 2016;374(9):823-832.

19. Tomayko JF, Li G, Breton JJ, Scangarella-Oman N, Dalessandro M, Martin M. The safety and efficacy of topical retapamulin ointment versus placebo ointment in the treatment of secondarily infected traumatic lesions: a randomized, double-blind superiority study. *Advances in skin & wound care.* 2013;26(3):113-121.

20. Weinberg E, Fourie B, Allmann B, Toerien A. THE USE OF CEFADROXIL IN SUPERINFECTED ATOPIC-DERMATITIS. 1992;52(5):671-676.

UTI RCTs included:

1. Asbach HW. Single dose oral administration of cefixime 400mg in the treatment of acute uncomplicated cystitis and gonorrhoea. *Drugs.* 1991;42 Suppl 4:10-13.

2. Christiaens TC, De Meyere M, Verschraegen G, Peersman W, Heytens S, De Maeseneer JM. Randomised controlled trial of nitrofurantoin versus placebo in the treatment of uncomplicated urinary tract infection in adult women. *The British journal of general practice : the journal of the Royal College of General Practitioners.* 2002;52(482):729-734.

3. Dubi J, Chappuis P, Darioli R. Treatment of Urinary-Tract Infection by Single-Dose Co-Trimoxazole Compared with Single-Dose Amoxycillin and Placebo. *Schweiz Med Wschr.* 1982;112(3):90-92.

4. Ferry SA, Holm SE, Stenlund H, Lundholm R, Monsen TJ. Clinical and bacteriological outcome of different doses and duration of pivmecillinam compared with placebo therapy of uncomplicated lower urinary tract infection in women: the LUTIW project. *Scandinavian journal of primary health care.* 2007;25(1):49-57.

5. Mabeck CE. Treatment of uncomplicated urinary tract infection in non-pregnant women. *Postgraduate medical journal.* 1972;48(556):69-75.

6. Mashaqba M, Al-Husban N. Efficacy of Antibiotics in Women with Symptoms of Urinary Tract Infection but Negative Dipstick Urinalysis: Prospective Randomized Controlled Trial. 2007;5(4):37-38.

7. Richards D, Toop L, Chambers S, Fletcher L. Response to antibiotics of women with symptoms of urinary tract infection but negative dipstick urine test results: double blind randomized controlled trial. *BMJ (Clinical research ed).* 2005;331(7509):143.

8. Stamm WE, Running K, McKevitt M, Counts GW, Turck M, Holmes KK. Treatment of the acute urethral syndrome. *The New England journal of medicine.* 1981;304(16):956-958.

Supplementary Table S1- Study characteristics of each included RCT ordered by sample size

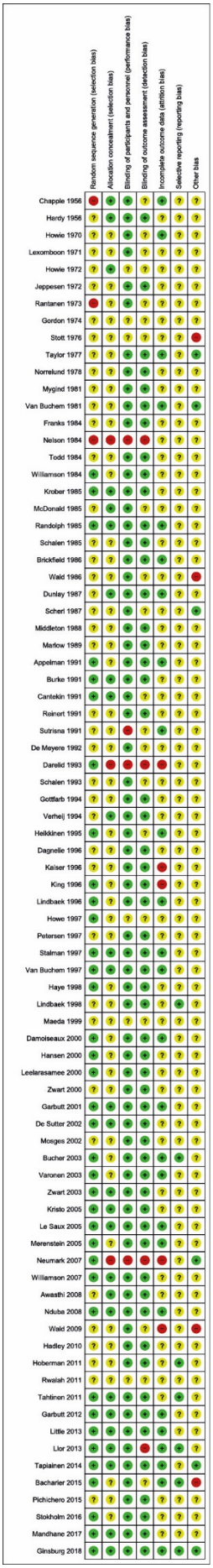
Author & year	Country	Type of infection	Sample size	Primary care setting
ARI RCTs				
Little 2013	12-country	Lower RTI	2061	Primary care centres
Awasthi 2008	India	Non-Severe Pneumonia	1647	Outpatient clinics
Leelarasamee 2000	Thailand	Sore throat	1180	Primary care centres
Ginsburg 2018	Malawi	Non-Severe Pneumonia	1126	Outpatient clinics
Sutrisna 1991	Indonesia	Non-specific RTI	900	Primary care centres
Howie 1970	UK	Non-specific	829	General practices
Nduba 2008	Kenya	Bronchitis	660	Outpatient clinics
Bacharier 2015	USA	Non-specific	607	Primary care centres
Zwart 2003	Netherlands	Sore throat	561	Family practices
Le Saux 2005	Canada	Otitis Media	531	Mixed locations
Cantekin 1991	USA	Otitis Media	460	Mixed locations
De Sutter 2002	Belgium	Non-specific	416	Family practices
Llor 2013	Spain	Bronchitis	416	Primary care centres
Middleton 1988	USA	Sore throat	371	Not specified
Tahtinen 2011	Finland	Otitis media	319	Primary care centres
Kaiser 1996	Switzerland	Common cold	314	Outpatient clinics
Chapple 1956	UK	Sore Throat	308	General practices
Mandhane 2017	Canada	Wheezing	300	Emergency departments
Hoberman 2011	USA	Otitis Media	291	Hospital clinics
Howie 1972	USA	Otitis Media	280	Paediatrics clinics
Lexomboon 1971	Thailand	Non-specific	261	Hospital clinics
Bucher 2003	Switzerland	Rhinosinusitis	252	Mixed locations
Damoiseaux 2000	Netherlands	Otitis Media	240	General practices
Williamson 2007	UK	Maxillary sinusitis	240	Family practices
Dagnelie 1996	Netherlands	Sore Throat	239	General practices
Burke 1991	UK	Otitis Media	232	General practices
Hardy 1956	USA	Non-specific	217	Outpatient clinics [hospital]
Van Buchem 1997	Netherlands	Sinusitis	214	Consultants clinics
Stott 1976	UK	Bronchitis	212	General practices
Reinert 1991	France	Rhinopharyngitis	211	Consultants clinics
Van Buchem 1981	Netherlands	Otitis media	202	General practices
Randolph 1985	USA	Sore throat	194	Paediatric clinics
Stalman 1997	Netherlands	Sinusitis	192	General practices
Garbutt 2001	USA	Sinusitis	188	Paediatric clinics
Taylor 1977	New Zealand	Non-specific RTI	188	General practices
Petersen 1997	Israel	Sore throat	186	Mixed locations

Neumark 2007	Sweden	Otitis media	179	Mixed locations
De Meyere 1992	Belgium	Sore Throat	173	General practices
Haye 1998	Norway	Rhinitis	169	General practices
Garbutt 2012	USA	Rhinosinusitis	166	Community practices
Mygind 1981	Denmark	Otitis media	158	Home visits
Stokholm 2016	Denmark	Asthma-like symptoms	158	Trial centre
Zwart 2000	Netherlands	Sore throat	156	Family practices
Varonen 2003	Finland	Rhinosinusitis	150	Primary care centres
Jeppesen 1972	Denmark	Maxillary sinusitis	142	Outpatient clinics
Todd 1984	USA	Nasopharyngitis	142	Paediatric clinics
Verheij 1994	Netherlands	Bronchitis	140	General practices
Wald 1986	USA	Sinusitis	136	Hospital clinics
Merenstein 2005	USA	Sinusitis	135	Family practices
Hansen 2000	Denmark	Maxillary sinusitis	133	General practices
Lindbaek 1996	Norway	Sinusitis	130	General practice
Appelman 1991	Netherlands	Otitis Media	121	General practice
Hadley 2010	USA	Rhinosinusitis	118	University medical centre
McDonald 1985	USA	Sore throat	114	University medical centre
Schalen 1993	Sweden	Laryngitis	106	University medical centre
Heikkinen 1995	Finland	Otitis Media	104	Private otologic centre
Howe 1997	UK	Sore throat	103	General practices
Schalen 1985	Sweden	Laryngitis	100	ENT clinics
Rwalah 2011	Jordan	Non-specific RTI	96	Paediatric clinics [hospital]
King 1996	USA	Bronchitis	91	Primary care centres
Gordon 1974	Australia	Non-specific	89	Casualty department
Darelid 1993	Sweden	Bronchitis	88	Paediatric clinics
Maeda 1999	Japan	Influenza-like infection	85	Paediatric clinics [hospital]
Pichichero 2015	Finland	Otitis media	84	Mixed locations
Tapiainen 2014	Finland	Otitis media	84	Mixed locations
Kristo 2005	Finland	Sinusitis	82	Primary care centre
Williamson 1984	USA	Bronchitis	74	Family practices
Norrelund 1978	Denmark	Sinusitis	73	General practices
Franks 1984	USA	Bronchitis	67	Family practices [hospital]
Dunlay 1987	USA	Bronchitis	63	Family practices
Lindbaek 1998	Norway	Sinusitis	63	Family practices
Rantanen 1973	Finland	Sinusitis	61	Outpatient clinics
Wald 2009	USA	Sinusitis	56	Mixed locations
Gottfarb 1994	Sweden	Bronchitis	52	Outpatient clinics
Nelson 1984	USA	Sore throat	51	University medical centre
Brickfield 1986	USA	Bronchitis	50	Family practices
Krober 1985	USA	Sore throat	44	Not specified
Scherl 1987	USA	Bronchitis	31	Outpatient clinics

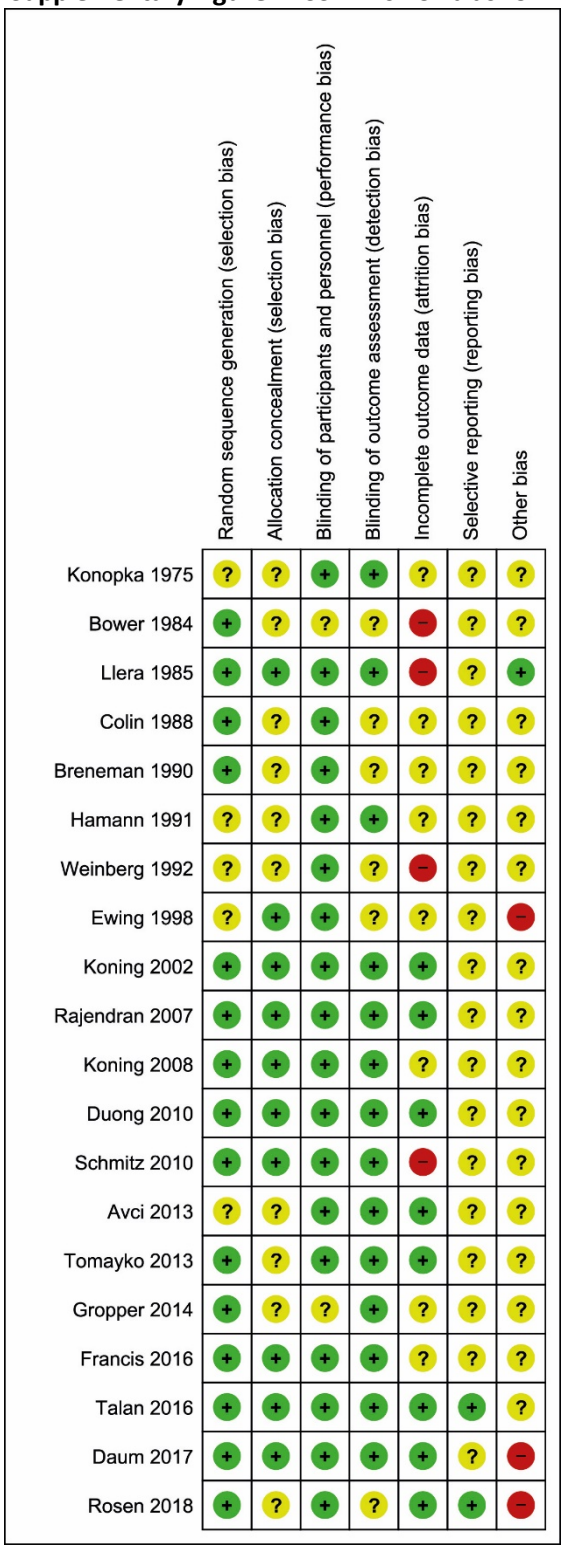
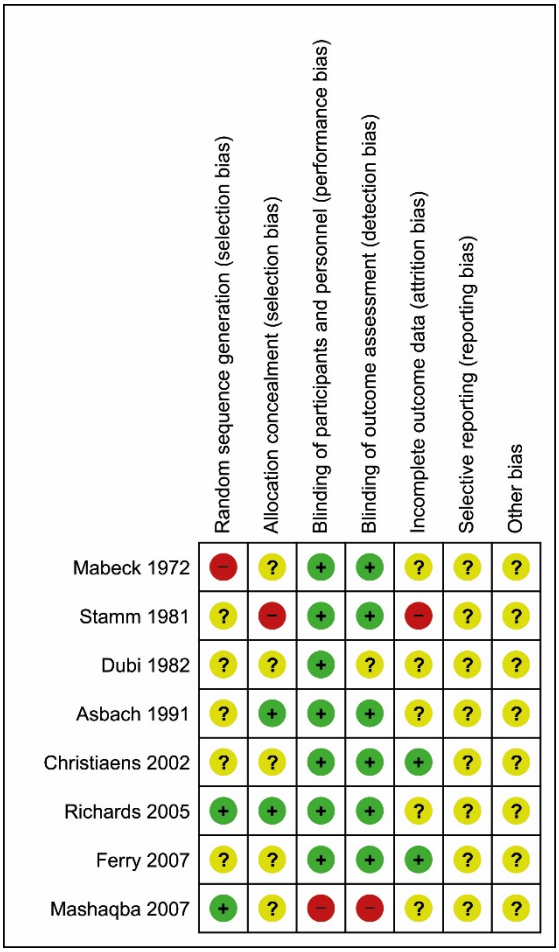
Marlow 1989	USA	Sore throat	26	Family practices
Mosges 2002	Germany	Rhinosinusitis	20	Not specified
SSTI RCTs				
Talan 2016	USA	Abscess	1247	Emergency departments
Daum 2017	USA	Abscess	786	Mixed locations
Konopka 1975	USA	Dermatoses	742	Trial centre
Gropper 2014	Multi-country	Impetigo	465	Trial centre
Rosen 2018	Multi country	Impetigo	412	Trial centre
Tomayko 2013	Multi-country	Infected traumatic lesions	360	Trial centre
Koning 2008	Netherlands	Impetigo	213	Trial centre
Schmitz 2010	USA	Abscess	212	Emergency departments
Koning 2002	Netherlands	Impetigo	184	General practices
Rajendran 2007	USA	Abscess	166	Outpatient clinics [hospital]
Avci 2013	Turkey	Erythrasma	150	Not specified
Duong 2010	USA	Abscess	149	Emergency departments
Francis 2016	UK	Eczema	113	Mixed locations
Breneman 1990	USA	Dermatoses	106	Not specified
Colin 1988	Cote d'Ivoire	Non-specific infections	98	Outpatient clinics [hospital]
Hamann 1991	Denmark	Erythrasma	86	General practices
Bower 1984	UK	Skin sores	68	Paediatric clinics
Ewing 1998	UK	Atopic dermatitis	50	Outpatient clinics [hospital]
Llera 1985	USA	Abscess	50	Emergency departments
Weinberg 1992	South Africa	Atopic dermatitis	33	Not specified
UTI RCTs				
Ferry 2007	Sweden	Lower UTI	1143	Primary care centres
Mabeck 1972	Denmark	Non-specific UTI	191	Outpatient clinics
Asbach 1991	Germany	Cystitis	80	General practices
Christiaens 2002	Belgium	Non-specific UTI	78	General practices
Stamm 1981	USA	Non-specific UTI	62	Mixed locations
Dubi 1982	Switzerland	Non-specific UTI	61	Outpatient clinics
Mashaqba 2007	Jordan	Non-specific UTI	59	Outpatient clinics [hospital]
Richards 2005	New Zealand	Non-specific UTI	59	Primary care centres

Risk of Bias for individual RCTs (studies presented according to year, with oldest presented first)

Supplementary Figure 1: ARI Risk of bias assessment for individual RCTs



Supplementary Figure 2: SSTI Risk of bias for individual RCTs



Supplementary Figure 3: UTI Risk of bias for individual RCTs