Empty review evaluation

Update report, 11 February 2022

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Key Points:

- An 'empty review' is a review that has no included studies
- Empty reviews may ask important questions but not be cost-effective to produce
- Since 2013, there have been fewer first publications of empty Cochrane reviews about health topics in the Cochrane Library although the proportion of empty reviews varies between Cochrane Review Groups
- The importance of empty review questions needs to be revisited through qualitative evaluation in consultation with review authors and key stakeholders

Introduction

An 'empty review' is a review that reports no included studies (Montgomery, 2011). Production of these so-called empty reviews continues to be an area of contention in healthcare evidence synthesis and decision-making. It is possible for a Cochrane review to have no included studies if the field is new or the review question has a narrow scope i.e. components of the PICO (population, intervention, comparator, outcomes) are very specific. Publishing these empty reviews may help to highlight gaps in the evidence base and incentivise more research into marginalised groups and people who have rare conditions, as well as innovative treatments. However, there is a cost to producing systematic reviews, and it may be argued that the publication of empty reviews is not an efficient approach to addressing evidence gaps, particularly if limited resources need to be prioritised for sustainable development. The purpose of this report is to encourage more discussions about the value of empty reviews and their contribution to future evidence production.

Aims

- 1. Identify empty reviews of health topics published in the Cochrane Library between 16 August 2010 and 15 August 2021
- 2. Evaluate these findings in the context of the original 'Running on empty' project (Montgomery, 2011)

Background

More than a decade ago, the Cochrane Empty Reviews Project Group convened and reported on the issue of empty reviews within the *Cochrane Database of Systematic reviews (CDSR)*. They undertook a quantitative and qualitative evaluation of all empty reviews published from inception of the *CDSR* to 15 August 2010 (spanning approximately 15 years)(Montgomery, 2011).

Methods

The report author (KJ) undertook single data extraction between August and December 2021. The evaluation included 51 of 52 Cochrane Review Groups (CRGs) in existence at the time that addressed health topics (not the Methodology Review Group). Empty review titles and their year of publication were recorded along with the total number of reviews published by a CRG, the number and proportion of empty reviews, and the year of first publication of empty reviews. These data were collected from the Abstract sections and PRISMA flowcharts. For some reviews, such as overviews of reviews, it was often necessary to locate included studies from the Results section. As per the original project (Montgomery, 2011), additional data fields extracted were the number of excluded studies, those awaiting classification, and ongoing studies in empty reviews. These data were limited to reporting in the 'Characteristics of studies' section of the Cochrane review.

Results

Number and proportion of empty reviews in the CDSR

Between 16 August 2010 and 15 August 2021, a total of 6488 records were identified for new and updated reviews in the CDSR (from 51 CRGs), of which 495 were empty (7.6%). This is similar to the proportion of empty reviews published in the previous 2010 analysis (8.6%) (Montgomery, 2011). One potential explanation for the slight decrease in the proportion of empty reviews is the recent proliferation of reviews that extend eligibility to include non-randomised study designs in addition to randomised controlled trials (see Appendix Tables 1-8 for a full list of all empty reviews identified, organised by thematic Networks of CRGs).

On 15 August 2010, the Cochrane Empty Reviews Project Group identified 376 empty reviews (8.6%) across the whole of the CDSR (52 CRGs). Although there was variation among CRGs, there was an increasing trend for empty reviews first published between 1995 and 2010. Plotted over time, there were less than 10 empty reviews first published annually in the CDSR during the late 1990s, more than 30 by 2005, and peaking at more than 60 empty reviews across the CDSR in 2009 (Montgomery, 2011). Based on these observations, it might be expected that the proportion of empty reviews first published would continue to increase. However, this trend was not found to continue over the most recent decade. The number of first publication empty reviews peaked at 56 in 2013 and then gradually declined over the subsequent years. Between January 2013 and August 2021, there was an overall trend towards a decline in first publications of empty reviews (*see Figure 1*).

Date of first publication of empty reviews published between 15 Aug 2010 and 16 Aug 2021

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Figure 1: Change over time in first publications of empty reviews in the Cochrane Library.

Empty reviews published by CRG

Plotting the proportion of empty reviews across CRGs revealed that more than half of all CRGs addressing health topics (27/51) published 5% or more empty reviews and eight CRGs published 10% or more (see Appendix Figure 2). Of the four CRGs with at least 15% empty reviews, the review scope related to people with conditions affecting parts of the sensory system and children with long term conditions in particular. Conducting controlled trials addressing these conditions in children may be challenging which could be one potential explanation for the larger proportion of empty reviews.

While the scope of some CRGs has changed over time, it may be helpful to explore the change in production of empty reviews at a CRG level where possible. Graphical distribution from the original project suggests that twice as many CRGs published 10% or more empty reviews when compared to the recent data. Of the six CRGs with at least 15% empty reviews, their scope showed overlap with findings from the latest update (Montgomery, 2011).

Sixteen of the 51 current CRGs had a proportion of empty reviews that was higher than the overall proportion identified in the original project (8.6%) (Montgomery, 2011). Over the search period, only two CRGs were found to have published no empty reviews, with a median of five empty reviews per CRG (25th percentile: 2.5; 75th percentile: 13). It is possible that separate, updated versions of reviews may have been published in the *CDSR* with included studies, reducing the proportion of unanswered questions. Assuming no such duplication of reviews in the *CDSR*, the greatest number of new and updated empty reviews published by a single CRG was 50, representing 10.1% of the Group's published reviews. This CRG also had the largest number of published reviews overall and the number of empty reviews was greater than the total number of reviews published by four other

CRGs, including both CRGs that published no empty reviews. As such, there may be a tendency to publish fewer empty reviews if the total portfolio of reviews is smaller. In addition to review production costs, empty reviews may have less impact on clinical practice guideline development than reviews with included studies. These factors can influence review prioritisation, emphasising the need to revisit the relative impact of addressing questions that are likely to result in empty reviews.

Reporting 'Characteristics of studies'

The completion of this section of a Cochrane review can help to better understand the evidence landscape and likelihood of studies being included in a future update of the review.

- 99 empty reviews did not report excluded studies in 'Characteristics of studies', representing 20% of all of the empty reviews located during the search period. It is noted that some reviews reported excluded studies or the absence of any excluded studies in the main text of the review instead. Although the reporting of excluded studies could be more consistently presented, these latest results do suggest an improvement since the original project, in which 25.3% of empty reviews did not report excluded studies (Montgomery, 2011).
- 459 empty reviews did not report studies awaiting classification in 'Characteristics of studies', representing 92.7% of all of the empty reviews located during the search period, which is slightly lower than in the original project, in which 96% of empty reviews did not report studies awaiting classification (Montgomery, 2011).
- 388 empty reviews did not report ongoing studies in 'Characteristics of studies', representing 78.4% of all the empty reviews located during the search period, suggesting a need for more consistent reporting but considerable improvement since the original project, in which 90.2% of empty reviews did not report ongoing studies (Montgomery, 2011).

Standards and guidance for reporting

When the original project explored the implications for practice in Cochrane reviews, they found some ambiguity in reporting. A minority of the reviews also included recommendations. Project investigators noted a lack of guidance on the handling of empty reviews. They undertook a survey of CRG staff to explore different perspectives. The top reason given for publishing an empty review was the review question being important, followed by the review guiding future research. However, the largest proportion of respondents did not identify supporting rationale and some reported they published empty reviews but discouraged doing so. Among the reasons given for not publishing empty reviews, respondents indicated that the time and financial costs of production were too high; they referred to the negative influence on the Group's impact factor and potential for misleading reporting of available evidence (Montgomery, 2011).

Training opportunities and the development of the Methodological Expectations of Cochrane Intervention Reviews (MECIR) Standards may have helped to address some earlier concerns, such as the reporting of excluded studies (Higgins 2021). In terms of the reporting of empty review conclusions, MECIR requires that implications for practice should avoid making recommendations, whereas recommendations for future research 'should offer constructive guidance on addressing the remaining uncertainties identified by the review' (Higgins 2021). A qualitative evaluation of the implications for research might help to identify overarching themes across empty reviews but it remains unclear how this information is being used by the wider research community and funders.

In addition to the importance of a review question to stakeholders, the format of an empty review could also influence its usability in research and practice.

Limitations of update evaluation

- This evaluation represents a snapshot in time yet the *CDSR* is continually updated and the collection can be modified retrospectively e.g. the withdrawal of a review.
- Withdrawn reviews listed in the CDSR were included in the total number of published reviews. As such, the proportion of empty reviews is likely an underestimation relative to the available evidence.
- Data were extracted by a single person due to resource constraints. Dual data extraction could reduce the risk of errors and single person biases (Higgins 2021).
- Unanswered review questions could have been missed through the inclusion of empty reviews as part of an overview of reviews.
- The Methodology Review Group was included in the original evaluation (with no empty reviews identified) but not in this update, which focused on reviews about health topics.

Conclusions

After a steady increase since the mid-nineties, this update reveals a recent decline in the number of first publications of empty reviews about health topics by Cochrane. Diversification in review methods may have contributed to this decline; however, there continues to be substantial variation between CRGs in the proportion of empty reviews published. The production of these reviews and their format could have significant implications for the sustainability of review production, which will need to be examined in more depth. This update also highlights particular populations where there appear to be evidence gaps, which may have implications for improving health equity in research. It is anticipated the findings will stimulate further exploration of the value of empty reviews as Cochrane looks forward to developing a new model of review production. For example, it may be possible to create a filter for empty reviews in the Cochrane Library to help identify evidence gaps and inform prioritisation in the context of underrepresented populations and innovative treatments. Future work will need to include revisiting the importance of the review questions in empty reviews through qualitative evaluation in consultation with review authors and key stakeholders. Further improvement in the reporting of excluded studies, those awaiting classification and ongoing studies could help to develop the evidence landscape. In terms of addressing production costs for important review questions, new streamlined formats for publishing empty reviews may be required.

Acknowledgements

Thank you to Michael Brown and Toby Lasserson from the Cochrane Central Executive Team for providing their feedback on this report.

References

Higgins JPT, Lasserson T, Chandler J, Tovey D, Thomas J, Flemyng E, Churchill R. *Methodological Expectations of Cochrane Intervention Reviews*. Cochrane: London, Version February 2021.

Montgomery P, Yaffe J, Hopewell S, Shepard L on behalf of the Empty Reviews Project Group. [meeting report]. Running on Empty: The Cochrane Empty Reviews Project report of findings and consensus group feedback; 2011 November. https://emptyreviews.files.wordpress.com (accessed 10 January 2022).

Appendix

Table 1: Abdomen and Endocrine Network CRGs

| CRG | Year | Title |
|----------------|------|--|
| Colorectal | 2011 | Single incision versus conventional multi-incision appendicectomy for suspected appendicitis |
| Gut | 2020 | Surgery versus radical endotherapies for early cancer and high-grade dysplasia in Barrett's oesophagus |
| Gut | 2016 | Fasting for haemostasis in children with gastrointestinal bleeding |
| | | Percutaneous endoscopic gastrostomy versus percutaneous radiological gastrostomy for swallowing |
| Gut | 2016 | <u>disturbances</u> |
| Gut | 2014 | Botulinum toxin for upper oesophageal sphincter dysfunction in neurological swallowing disorders |
| Gut | 2013 | Surveillance of gastric intestinal metaplasia for the prevention of gastric cancer |
| Gut | 2012 | Screening for oesophageal cancer |
| | | Beta-blockers versus placebo or no intervention for primary prophylaxis of oesophageal variceal bleeding in |
| Hepato-Biliary | 2021 | children with chronic liver disease or portal vein thrombosis |
| | | Band ligation versus sclerotherapy for primary prophylaxis of oesophageal variceal bleeding in children with |
| Hepato-Biliary | 2020 | chronic liver disease or portal vein thrombosis |
| | | Sclerotherapy versus beta-blockers for primary prophylaxis of oesophageal variceal bleeding in children and |
| Hepato-Biliary | 2020 | adolescents with chronic liver disease or portal vein thrombosis |
| | | Band ligation versus beta-blockers for primary prophylaxis of oesophageal variceal bleeding in children with |
| Hepato-Biliary | 2019 | <u>chronic liver disease or portal vein thrombosis</u> |
| Hepato-Biliary | 2016 | Booster dose vaccination for preventing hepatitis B |
| Hepato-Biliary | 2015 | Vitamin K for upper gastrointestinal bleeding in people with acute or chronic liver diseases |
| Hepato-Biliary | 2015 | Antifibrinolytic amino acids for upper gastrointestinal bleeding in people with acute or chronic liver disease |
| Hepato-Biliary | 2013 | Surgical resection versus liver transplant for patients with hepatocellular carcinoma |
| Hepato-Biliary | 2013 | Laparoscopic versus open liver resection for benign and malignant hepatic lesions in adults |
| | | Calcineurin inhibitor minimisation versus continuation of calcineurin inhibitor treatment for liver transplant |
| Hepato-Biliary | 2012 | <u>recipients</u> |
| Hepato-Biliary | 2011 | Lamivudine with or without adefovir dipivoxil for postoperative hepatocellular carcinoma |
| Hepato-Biliary | 2011 | Routine drainage for orthotopic liver transplantation |

| Kidney & Transplant | 2016 | Urinary alkalisation for symptomatic uncomplicated urinary tract infection in women |
|----------------------------|------|---|
| Kidney & Transplant | 2015 | Early versus delayed erythropoietin for the anaemia of end-stage kidney disease |
| Kidney & Transplant | 2015 | Screening with urinary dipsticks for reducing morbidity and mortality |
| Kidney & Transplant | 2013 | Interventions for HIV-associated nephropathy |
| Kidney & Transplant | 2012 | Sodium bicarbonate supplements for treating acute kidney injury |
| Kidney & Transplant | 2010 | Heparin and related substances for preventing diabetic kidney disease |
| Metabolic and Endocrine | 2019 | Calcium, vitamin D or recombinant parathyroid hormone for managing post-thyroidectomy hypoparathyroidism |
| Metabolic and Endocrine | 2016 | Sodium-glucose cotransporter (SGLT) 2 inhibitors for prevention or delay of type 2 diabetes mellitus and its associated complications in people at risk for the development of type 2 diabetes mellitus |
| Metabolic and Endocrine | 2015 | Chinese herbal medicines for hypothyroidism |
| Metabolic and Endocrine | 2011 | Computer-assisted versus oral-and-written family history taking for identifying people with elevated risk of type 2 diabetes mellitus |
| Metabolic and Endocrine | 2011 | Low-fat diets for acquired hypercholesterolaemia |

Table 2: Acute and Emergency Care Network CRGs

| CRG | Year | Title |
|------------------------------|------|---|
| Acute Respiratory Infections | 2018 | Short-course versus long-course therapy of the same antibiotic for community-acquired pneumonia in adolescent and adult outpatients |
| Acute Respiratory infections | 2018 | |
| | | Short-course versus long-course intravenous therapy with the same antibiotic for severe community- |
| Acute Respiratory Infections | 2017 | acquired pneumonia in children aged two months to 59 months |
| | | Oral Astragalus (Huang qi) for preventing frequent episodes of acute respiratory tract infection in |
| Acute Respiratory Infections | 2016 | <u>children</u> |
| Acute Respiratory Infections | 2015 | <u>Chinese medicinal herbs for mumps</u> |
| Acute Respiratory Infections | 2015 | Acupuncture for mumps in children |
| Acute Respiratory Infections | 2014 | Decongestants, antihistamines and nasal irrigation for acute sinusitis in children |

| Acute Respiratory Infections | 2012 | Chinese medicinal herbs for acute bronchitis |
|--------------------------------|------|--|
| Acute Respiratory Infections | 2011 | <u>Chinese medicinal herbs for measles</u> |
| Acute Respiratory Infections | 2011 | Advising patients to increase fluid intake for treating acute respiratory infections |
| Anaesthesia | 2016 | Local versus general anaesthesia for adults undergoing pars plana vitrectomy surgery |
| Anaesthesia | 2015 | Sedation versus general anaesthesia for provision of dental treatment to patients younger than 18 years |
| Anaesthesia | 2014 | Neostigmine for reversal of neuromuscular block in paediatric patients |
| Bone, Joint and Muscle | | Conservative interventions for treating diaphyseal fractures of the forearm bones in children |
| Trauma | 2013 | Conservative interventions for treating diaphysear fractures of the forearm bones in children |
| Bone, Joint and Muscle | | Hyperbaric oxygen therapy for promoting fracture healing and treating fracture non-union |
| Trauma | 2012 | |
| Bone, Joint and Muscle | 2012 | Surgical versus non-surgical interventions for treating humeral shaft fractures in adults |
| Trauma Bone, Joint and Muscle | 2012 | |
| Trauma | 2011 | Surgical interventions for diaphyseal fractures of the radius and ulna in children |
| Emergency and Critical Care | 2011 | Vascular access specialist teams for device insertion and prevention of failure |
| Emergency and Critical Care | 2016 | Central venous catheter (CVC) removal for patients of all ages with candidaemia |
| Emergency and Critical Care | 2015 | Adjunctive hyperbaric oxygen for necrotizing fasciitis |
| Emergency and Critical Care | 2014 | Conservative versus interventional management for primary spontaneous pneumothorax in adults |
| Emergency and Critical Care | 2014 | Permissive hypoxaemia versus normoxaemia for mechanically ventilated critically ill patients |
| Emergency and Critical Care | 2014 | High-flow nasal cannula therapy for respiratory support in children |
| Emergency and Critical Care | 2013 | De-escalation of antimicrobial treatment for adults with sepsis, severe sepsis or septic shock |
| Emergency and Critical Care | 2013 | Hypothermia for neuroprotection in children after cardiopulmonary arrest |
| | | Adrenaline auto-injectors for the treatment of anaphylaxis with and without cardiovascular collapse in |
| Emergency and Critical Care | 2012 | the community |
| Emergency and Critical Care | 2012 | Glucocorticoids for the treatment of anaphylaxis |
| Emergency and Critical Care | 2010 | Early versus late pre-intensive care unit admission broad spectrum antibiotics for severe sepsis in adults |
| Injuries | 2019 | Prophylactic antibiotics for penetrating abdominal trauma |
| Injuries | 2019 | Indomethacin for intracranial hypertension secondary to severe traumatic brain injury in adults |
| Injuries | 2015 | Hemodialysis for lithium poisoning |
| Injuries | 2015 | Non-operative management versus operative management in high-grade blunt hepatic injury |

| Injuries | 2015 | Snake antivenom for snake venom induced consumption coagulopathy |
|----------|------|--|
| Injuries | 2014 | Advanced trauma life support training for hospital staff |
| Injuries | 2014 | Vision screening of older drivers for preventing road traffic injuries and fatalities |
| Injuries | 2014 | Non-operative versus operative treatment for blunt pancreatic trauma in children |
| Injuries | 2013 | Plasma transfusion strategies for critically ill patients |
| | | Selective computed tomography (CT) versus routine thoracoabdominal CT for high-energy blunt-trauma |
| Injuries | 2013 | <u>patients</u> |
| Injuries | 2013 | The Lund concept for severe traumatic brain injury |
| Injuries | 2013 | Anticonvulsants for preventing seizures in patients with chronic subdural haematoma |
| Injuries | 2013 | <u>Damage control surgery for abdominal trauma</u> |

Table 3: Cancer Network CRGs

| CRG | Year | Title |
|-------------------------|------|---|
| Breast Cancer | 2013 | Mammography in combination with breast ultrasonography versus mammography for breast cancer screening in women at average risk |
| Childhood Cancer | 2021 | Physical therapy interventions, other than general physical exercise interventions, in children and adolescents before, during and following treatment for cancer |
| Childhood Cancer | 2016 | Interventions for promoting participation in shared decision-making for children with cancer |
| Childhood Cancer | 2016 | Antibody therapies for lymphoma in children |
| Childhood Cancer | 2015 | Extracorporeal photopheresis versus standard treatment for acute graft-versus-host disease after haematopoietic stem cell transplantation in paediatric patients |
| Childhood Cancer | 2015 | Extracorporeal photopheresis versus alternative treatment for chronic graft-versus-host disease after haematopoietic stem cell transplantation in paediatric patients |
| Childhood Cancer | 2015 | Cyclophosphamide versus ifosfamide for paediatric and young adult bone and soft tissue sarcoma patients |
| Childhood Cancer | 2015 | Minimally invasive surgery versus open surgery for the treatment of solid abdominal and thoracic neoplasms in children |
| Gynae, Neuro-Oncology & | 2020 | <u>Interventions to reduce the time to diagnosis of brain tumours</u> |

| Orphan | | |
|--------------------------------|------|---|
| Gynae, Neuro-Oncology & Orphan | 2020 | Pharmacological treatment of depression in people with a primary brain tumour |
| Gynae, Neuro-Oncology & Orphan | 2020 | Health education interventions to promote early presentation and referral for women with symptoms of endometrial cancer |
| Gynae, Neuro-Oncology & Orphan | 2019 | Interventions for the treatment of Paget's disease of the vulva |
| Gynae, Neuro-Oncology & Orphan | 2019 | Palliative interventions for controlling vaginal bleeding in advanced cervical cancer |
| Gynae, Neuro-Oncology & Orphan | 2017 | Biopsy versus resection for the management of low-grade gliomas |
| Gynae, Neuro-Oncology & Orphan | 2016 | Chemotherapy for resistant or recurrent gestational trophoblastic neoplasia |
| Gynae, Neuro-Oncology & Orphan | 2015 | Laetrile treatment for cancer |
| Gynae, Neuro-Oncology & Orphan | 2015 | Perioperative enhanced recovery programmes for gynaecological cancer patients |
| Gynae, Neuro-Oncology & Orphan | 2015 | Follow-up strategies after treatment (large loop excision of the transformation zone (LLETZ)) for cervical intraepithelial neoplasia (CIN): Impact of human papillomavirus (HPV) test |
| Gynae, Neuro-Oncology & Orphan | 2014 | Vaginal dilator therapy for women receiving pelvic radiotherapy |
| Gynae, Neuro-Oncology & Orphan | 2014 | Surgical treatment of stage IA2 cervical cancer |
| Gynae, Neuro-Oncology & Orphan | 2014 | Exenterative surgery for recurrent gynaecological malignancies |
| Gynae, Neuro-Oncology & Orphan | 2013 | Follow-up protocols for women with cervical cancer after primary treatment |
| Gynae, Neuro-Oncology & Orphan | 2013 | Patient-reported outcome measures for follow-up after gynaecological cancer treatment |
| Gynae, Neuro-Oncology & Orphan | 2013 | Chemotherapy for thymic carcinoma and advanced thymoma in adults |
| Gynae, Neuro-Oncology & | 2013 | Chemotherapy and/or radiotherapy in combination with surgery for ovarian carcinosarcoma |

| Orphan | | |
|-------------------------|------|---|
| Gynae, Neuro-Oncology & | | Electric fans for reducing adverse health impacts in heatwaves |
| Orphan | 2012 | Liebthie falls for readoing daverse fleater impacts in fleatwaves |
| | | Plasma transfusions prior to lumbar punctures and epidural catheters for people with abnormal |
| Haematology | 2017 | <u>coagulation</u> |
| | | Comparison of different platelet transfusion thresholds prior to insertion of central lines in patients |
| Haematology | 2015 | with thrombocytopenia |
| Haematology | 2014 | <u>Deferasirox for managing iron overload in people with myelodysplastic syndrome</u> |
| | | Allogeneic stem cell transplantation versus conventional therapy for advanced primary cutaneous T- |
| Haematology | 2013 | <u>cell lymphoma</u> |
| Lung Cancer | 2019 | Interventions for smoking cessation in people diagnosed with lung cancer |
| Urology | 2011 | Screening for testicular cancer |

Table 4: Children and Families Network CRGs

| CRG | Year | Title |
|--------------|------|---|
| CF & Genetic | | Timing of pancreatic enzyme replacement therapy (PERT) in cystic fibrosis |
| Disorders | 2021 | Tilling of paricreatic enzyme replacement therapy (PERT) in cystic hibrosis |
| CF & Genetic | | Hematopoietic stem cell transplantation for people with β-thalassaemia |
| Disorders | 2021 | nematopoletic stem cen transplantation for people with p-thalassaernia |
| CF & Genetic | | Gene therapy for sickle cell disease |
| Disorders | 2020 | Gene therapy for sickle cell disease |
| CF & Genetic | | Rituximab for treating inhibitors in people with inherited severe hemophilia |
| Disorders | 2020 | Rituximab for treating minibitors in people with inherited severe hemophina |
| CF & Genetic | | Homatonoictic stom call transplantation for poople with cickle call disease |
| Disorders | 2020 | Hematopoietic stem cell transplantation for people with sickle cell disease |
| CF & Genetic | | Nowhern careening for galactecopmic |
| Disorders | 2020 | Newborn screening for galactosaemia |
| CF & Genetic | | Interventions for treating introduced is chalacteric in popula with sickle call disease |
| Disorders | 2020 | Interventions for treating intrahepatic cholestasis in people with sickle cell disease |

| CF & Genetic Disorders | 2020 | Antibiotic treatment for nontuberculous mycobacteria lung infection in people with cystic fibrosis |
|---------------------------|------|--|
| CF & Genetic Disorders | 2020 | Gene therapy for haemophilia |
| CF & Genetic Disorders | 2020 | Antibiotic treatment for Burkholderia cepacia complex in people with cystic fibrosis experiencing a pulmonary exacerbation |
| CF & Genetic Disorders | 2020 | Interventions for preventing and managing advanced liver disease in cystic fibrosis |
| CF & Genetic Disorders | 2020 | Antibiotic treatment for Stenotrophomonas maltophilia in people with cystic fibrosis |
| CF & Genetic Disorders | 2019 | Treatment of dental complications in sickle cell disease |
| CF & Genetic Disorders | 2019 | Regular long-term red blood cell transfusions for managing chronic chest complications in sickle cell disease |
| CF & Genetic Disorders | 2019 | Medical interventions for chronic rhinosinusitis in cystic fibrosis |
| CF & Genetic Disorders | 2019 | Antibiotics for treating osteomyelitis in people with sickle cell disease |
| CF & Genetic Disorders | 2019 | Antibiotics for treating acute chest syndrome in people with sickle cell disease |
| CF & Genetic Disorders | 2019 | Duration of intravenous antibiotic therapy in people with cystic fibrosis |
| CF & Genetic Disorders | 2019 | Treatment of dental and orthodontic complications in thalassaemia |
| CF & Genetic Disorders | 2019 | Enteral tube feeding for cystic fibrosis |
| CF & Genetic Disorders | 2019 | Computer and mobile technology interventions to promote medication adherence and disease management in people with thalassemia |
| CF & Genetic Disorders | 2019 | Interventions for promoting participation in shared decision-making for children and adolescents with cystic fibrosis |
| CF & Genetic Disorders | 2019 | Eradication therapy for Burkholderia cepacia complex in people with cystic fibrosis |

| CF & Genetic Disorders | 2019 | Hydroxyurea (hydroxycarbamide) for transfusion-dependent β-thalassaemia |
|---------------------------|------|--|
| CF & Genetic | | Desmopressin acetate (DDAVP) for preventing and treating acute bleeds during pregnancy in women with |
| Disorders | 2019 | <u>congenital bleeding disorders</u> |
| CF & Genetic | | Vaccines for preventing invasive salmonella infections in people with sickle cell disease |
| Disorders | 2018 | vaccines for preventing invasive samonena infections in people with sickle cell disease |
| CF & Genetic | | Conjugate Haemophilus influenzae type b vaccines for sickle cell disease |
| Disorders | 2018 | Conjugate Haemophilias influenzae type b vaccines for sickle cell disease |
| CF & Genetic | | <u>Treatment for chronic methicillin-sensitive Staphylococcus aureus pulmonary infection in people with cystic</u> |
| Disorders | 2018 | <u>fibrosis</u> |
| CF & Genetic | | Immunocumprocity drug therapy for proventing rejection following lung transplantation in systic fibracia |
| Disorders | 2018 | Immunosuppressive drug therapy for preventing rejection following lung transplantation in cystic fibrosis |
| CF & Genetic | | Embolisation for pulmonary arteriovenous malformation |
| Disorders | 2018 | Embolisation for pulmonary arteriovenous manormation |
| CF & Genetic | | Splenectomy versus conservative management for acute sequestration crises in people with sickle cell disease |
| Disorders | 2017 | Spienectomy versus conservative management for acute sequestration crises in people with sickle cell disease |
| CF & Genetic | | Hematopoietic stem cell transplantation for Gaucher disease |
| Disorders | 2017 | Tierratopoletic sterri ceri transpiantation for Gaucher disease |
| CF & Genetic | | Maternal and foetal outcomes following natural vaginal versus caesarean section (c-section) delivery in women |
| Disorders | 2017 | with bleeding disorders and carriers |
| CF & Genetic | | Fluid replacement there are for a suite enicodes of pain in people with sighteen lidicages |
| Disorders | 2017 | Fluid replacement therapy for acute episodes of pain in people with sickle cell disease |
| CF & Genetic | | Antihiatics for treating community acquired pneumonia in poople with sighle cell disease |
| Disorders | 2016 | Antibiotics for treating community-acquired pneumonia in people with sickle cell disease |
| CF & Genetic | | Antifungal therapies for allergic bronchopulmonary aspergillosis in people with cystic fibrosis |
| Disorders | 2016 | Antifuligal therapies for allergic bronchopulmonary aspergillosis in people with cystic librosis |
| CF & Genetic | | Inhaled bronchodilators for acute chest syndrome in people with sickle cell disease |
| Disorders | 2016 | innaied bronchodilators for acute chest syndrome in people with sickle cell disease |
| CF & Genetic | | Pneumococcal vaccines for cystic fibrosis |
| Disorders | 2016 | Theumococcai vaccines for cystic horosis |
| CF & Genetic | | Neuraminidase inhibitors for the treatment of influenza infection in people with cystic fibrosis |
| Disorders | 2016 | Nediaminadase ministers for the treatment of mindenza infection in people with cystic fishosis |

| CF & Genetic | 2016 | Anti-inflammatory drugs and analgesics for managing symptoms in people with cystic fibrosis-related arthritis |
|------------------------|------|--|
| Disorders | 2016 | |
| CF & Genetic Disorders | 2015 | Newborn screening for homocystinuria |
| CF & Genetic | 2013 | |
| Disorders | 2014 | Surgical interventions for treating pectus excavatum |
| CF & Genetic | 2014 | |
| Disorders | 2014 | Interventions for treating acute bleeding episodes in people with acquired hemophilia A |
| CF & Genetic | | |
| Disorders | 2014 | Psychological therapies for thalassaemia |
| CF & Genetic | | |
| Disorders | 2012 | Chemical pleurodesis versus surgical intervention for persistent and recurrent pneumothoraces in cystic fibrosis |
| CF & Genetic | | |
| Disorders | 2012 | Disease modifying anti-rheumatic drugs in people with cystic fibrosis-related arthritis |
| CF & Genetic | | Totally implantable vascular access devices for cystic fibrosis |
| Disorders | 2012 | Totally illiplantable vascular access devices for cystic librosis |
| CF & Genetic | | Carnitine supplementation for inborn errors of metabolism |
| Disorders | 2012 | |
| Fertility Regulation | 2014 | Hormonal contraception for women exposed to HIV infection |
| Gynae & Fertility | 2017 | Surgery for tubal infertility |
| Gynae & Fertility | 2017 | Septum resection for women of reproductive age with a septate uterus |
| | | Tamoxifen or letrozole versus standard methods for women with estrogen-receptor positive breast cancer |
| Gynae & Fertility | 2013 | undergoing oocyte or embryo cryopreservation in assisted reproduction |
| Gynae & Fertility | 2013 | Prophylactic antibiotics for transcervical intrauterine procedures |
| Gynae & Fertility | 2013 | Minimally invasive versus open surgery for reversal of tubal sterilization |
| , | | Long versus short course treatment with metformin and clomiphene citrate for ovulation induction in women |
| Gynae & Fertility | 2012 | with PCOS |
| Gynae & Fertility | 2012 | Progestogens with or without oestrogen for irregular uterine bleeding associated with anovulation |
| Incontinence | 2013 | Catheter policies for management of long term voiding problems in adults with neurogenic bladder disorders |
| | | Continuous versus bolus intermittent intragastric tube feeding for preterm and low birth weight infants with |
| Neonatal | 2021 | gastro-oesophageal reflux disease |
| | | |

| Neonatal | 2021 | Bed sharing versus no bed sharing for healthy term neonates | | | |
|----------|------|--|--|--|--|
| | | Branched-chain amino acid supplementation for improving growth and development in term and preterm | | | |
| Neonatal | 2020 | <u>neonates</u> | | | |
| | | Stem cell-based interventions for the prevention of morbidity and mortality following hypoxic-ischaemic | | | |
| Neonatal | 2020 | encephalopathy in newborn infants | | | |
| Neonatal | 2020 | Clonidine for pain in non-ventilated infants | | | |
| Neonatal | 2020 | Surfactant for pulmonary haemorrhage in neonates | | | |
| Neonatal | 2019 | Prostanoids and their analogues for the treatment of pulmonary hypertension in neonates | | | |
| | | Stem cell-based interventions for the prevention and treatment of germinal matrix-intraventricular | | | |
| Neonatal | 2019 | haemorrhage in preterm infants | | | |
| Neonatal | 2019 | Formula versus maternal breast milk for feeding preterm or low birth weight infants | | | |
| | | Banked preterm versus banked term human milk to promote growth and development in very low birth weight | | | |
| Neonatal | 2019 | <u>infants</u> | | | |
| Neonatal | 2019 | Enteral lactoferrin for the treatment of sepsis and necrotizing enterocolitis in neonates | | | |
| Neonatal | 2019 | Education of family members to support weaning to solids and nutrition in infants born preterm | | | |
| | | Early planned removal versus expectant management of peripherally inserted central catheters to prevent | | | |
| Neonatal | 2018 | <u>infection in newborn infants</u> | | | |
| Neonatal | 2018 | Prostaglandin E1 for maintaining ductal patency in neonates with ductal-dependent cardiac lesions | | | |
| Neonatal | 2017 | Mesenchymal stem cells for the prevention and treatment of bronchopulmonary dysplasia in preterm infants | | | |
| Neonatal | 2017 | Saline irrigation for the management of skin extravasation injury in neonates | | | |
| Neonatal | 2017 | Infant pacifiers for reduction in risk of sudden infant death syndrome | | | |
| Neonatal | 2016 | Heparin for the treatment of thrombosis in neonates | | | |
| | | Instruments for assessing readiness to commence suck feeds in preterm infants: effects on time to establish full | | | |
| Neonatal | 2016 | oral feeding and duration of hospitalisation | | | |
| | | High frequency jet ventilation versus high frequency oscillatory ventilation for pulmonary dysfunction in | | | |
| Neonatal | 2016 | preterm infants | | | |
| | | Early removal versus expectant management of central venous catheters in neonates with bloodstream | | | |
| Neonatal | 2016 | <u>infection</u> | | | |

| | | Protocolized versus non-protocolized weaning for reducing the duration of invasive mechanical ventilation in | | | |
|-------------|------|--|--|--|--|
| Neonatal | 2016 | newborn infants | | | |
| Neonatal | 2016 | Transcutaneous carbon dioxide monitoring for the prevention of neonatal morbidity and mortality | | | |
| | | Specialist teams for neonatal transport to neonatal intensive care units for prevention of morbidity and | | | |
| Neonatal | 2015 | mortality | | | |
| Neonatal | 2015 | Strategies for the discontinuation of humidified high flow nasal cannula (HHFNC) in preterm infants | | | |
| Neonatal | 2014 | Non-nutritive sucking for gastro-oesophageal reflux disease in preterm and low birth weight infants | | | |
| Neonatal | 2013 | Hydralazine in infants with persistent hypoxemic respiratory failure | | | |
| Neonatal | 2013 | Acupuncture for hypoxic ischemic encephalopathy in neonates | | | |
| Neonatal | 2012 | Routine neonatal circumcision for the prevention of urinary tract infections in infancy | | | |
| Neonatal | 2012 | Prophylactic antibiotics to reduce morbidity and mortality in newborn infants with intercostal catheters | | | |
| Neonatal | 2012 | Surfactant for bacterial pneumonia in late preterm and term infants | | | |
| | | Patient isolation measures for infants with candida colonization or infection for preventing or reducing | | | |
| Neonatal | 2011 | transmission of candida in neonatal units | | | |
| Neonatal | 2011 | Oral immunoglobulin for the treatment of rotavirus diarrhea in low birth weight infants | | | |
| | | Fluid restriction and prophylactic indomethacin versus prophylactic indomethacin alone for prevention of | | | |
| Neonatal | 2011 | morbidity and mortality in extremely low birth weight infants | | | |
| | | Pharyngeal instillation of surfactant before the first breath for prevention of morbidity and mortality in preterm | | | |
| Neonatal | 2011 | infants at risk of respiratory distress syndrome | | | |
| Neonatal | 2010 | Milrinone for persistent pulmonary hypertension of the newborn | | | |
| Neonatal | 2010 | Respiratory function monitoring to reduce mortality and morbidity in newborn infants receiving resuscitation | | | |
| Neonatal | 2010 | Octreotide for the treatment of chylothorax in neonates | | | |
| Pregnancy & | | <u>Transplacental versus direct fetal corticosteroid treatment for accelerating fetal lung maturation where there is</u> | | | |
| Childbirth | 2018 | a risk of preterm birth | | | |
| Pregnancy & | 2010 | Interventions for investigating and identifying the causes of stillbirth | | | |
| Childbirth | 2018 | Diamed binth at an acutome for improving booking and the subsection of the subsectio | | | |
| Pregnancy & | 2010 | <u>Planned birth at or near term for improving health outcomes for pregnant women with pre-existing diabetes</u> and their infants | | | |
| Childbirth | 2018 | | | | |
| Pregnancy & | 2017 | Exercise for pregnant women with pre-existing diabetes for improving maternal and fetal outcomes | | | |

| Childbirth | | | | | | | |
|------------------------|------|---|--|--|--|--|--|
| Pregnancy & Childbirth | 2017 | Antenatal maternal education for improving postnatal perineal healing for women who have birthed in a hospital setting | | | | | |
| Pregnancy & Childbirth | 2017 | Planned caesarean section versus planned vaginal birth for severe pre-eclampsia | | | | | |
| Pregnancy & Childbirth | 2017 | Interconception care for women with a history of gestational diabetes for improving maternal and infant outcomes | | | | | |
| Pregnancy & Childbirth | 2017 | Elective repeat caesarean section versus induction of labour for women with a previous caesarean birth | | | | | |
| Pregnancy & Childbirth | 2016 | Baby-led compared with scheduled (or mixed) breastfeeding for successful breastfeeding | | | | | |
| Pregnancy & Childbirth | 2016 | Regimens of fetal surveillance of suspected large-for-gestational-age fetuses for improving health outcomes | | | | | |
| Pregnancy & Childbirth | 2016 | Melatonin for women in pregnancy for neuroprotection of the fetus | | | | | |
| Pregnancy & Childbirth | 2016 | Pharmacological interventions for generalised itching (not caused by systemic disease or skin lesions) in pregnancy | | | | | |
| Pregnancy & Childbirth | 2015 | Nutritional advice for improving outcomes in multiple pregnancies | | | | | |
| Pregnancy & Childbirth | 2015 | Reduction of the number of fetuses for women with a multiple pregnancy | | | | | |
| Pregnancy & Childbirth | 2015 | Risk-scoring systems for predicting preterm birth with the aim of reducing associated adverse outcomes | | | | | |
| Pregnancy & Childbirth | 2015 | Expedited versus conservative approaches for vaginal delivery in breech presentation | | | | | |
| Pregnancy & Childbirth | 2015 | <u>Directed preconception health programs and interventions for improving pregnancy outcomes for women who</u> <u>are overweight or obese</u> | | | | | |
| Pregnancy & Childbirth | 2015 | Planned early delivery versus expectant management for monoamniotic twins | | | | | |
| Pregnancy & Childbirth | 2015 | Routine blood cultures in the management of pyelonephritis in pregnancy for improving outcomes | | | | | |

| Pregnancy & Childbirth | 2014 | Creatine for women in pregnancy for neuroprotection of the fetus | | | | |
|---------------------------|------|---|--|--|--|--|
| Pregnancy & Childbirth | 2014 | Hepatitis B vaccination during pregnancy for preventing infant infection | | | | |
| Pregnancy & Childbirth | 2014 | Interventions for women in subsequent pregnancies following obstetric anal sphincter injury to reduce the risk of recurrent injury and associated harms | | | | |
| Pregnancy & Childbirth | 2014 | Prophylactic antibiotics for manual removal of retained placenta in vaginal birth | | | | |
| Pregnancy & Childbirth | 2014 | Antibiotics prior to amniotomy for reducing infectious morbidity in mother and infant | | | | |
| Pregnancy & Childbirth | 2014 | Interventions for treating postpartum constipation | | | | |
| Pregnancy & Childbirth | 2014 | Hypnosis for induction of labour | | | | |
| Pregnancy & Childbirth | 2014 | Antenatal breast milk expression by women with diabetes for improving infant outcomes | | | | |
| Pregnancy & Childbirth | 2014 | <u>Customised versus population-based growth charts as a screening tool for detecting small for gestational age infants in low-risk pregnant women</u> | | | | |
| Pregnancy & Childbirth | 2013 | Interventions for hyperthyroidism pre-pregnancy and during pregnancy | | | | |
| Pregnancy & Childbirth | 2013 | Transabdominal amnioinfusion for improving fetal outcomes after oligohydramnios secondary to preterm prelabour rupture of membranes before 26 weeks | | | | |
| Pregnancy & Childbirth | 2013 | Support for mothers, fathers and families after perinatal death | | | | |
| Pregnancy & Childbirth | 2013 | Antenatal immunoglobulin for fetal red blood cell alloimmunization | | | | |
| Pregnancy & Childbirth | 2013 | Deflation of gastric band balloon in pregnancy for improving outcomes | | | | |
| Pregnancy & Childbirth | 2013 | Methods for administering subcutaneous heparin during pregnancy | | | | |
| Pregnancy & Childbirth | 2013 | Interventions for improving outcomes for pregnant women who have experienced genital cutting | | | | |

| Pregnancy & Childbirth | 2013 | Interventions for supporting parents' decisions about autopsy after stillbirth | | | |
|------------------------|------|---|--|--|--|
| Pregnancy & Childbirth | 2013 | Vibroacoustic stimulation for fetal assessment in labour in the presence of a nonreassuring fetal heart rate trace | | | |
| Pregnancy & Childbirth | 2013 | Antenatal interventions for reducing weight in obese women for improving pregnancy outcome | | | |
| Pregnancy & Childbirth | 2013 | Laparoscopic surgery for presumed benign ovarian tumor during pregnancy | | | |
| Pregnancy & Childbirth | 2012 | Symphysiotomy for feto-pelvic disproportion | | | |
| Pregnancy & Childbirth | 2012 | <u>Trial of instrumental delivery in theatre versus immediate caesarean section for anticipated difficult assisted</u> <u>births</u> | | | |
| Pregnancy & Childbirth | 2012 | Interventions in the workplace to support breastfeeding for women in employment | | | |
| Pregnancy & Childbirth | 2012 | Maternity waiting facilities for improving maternal and neonatal outcome in low-resource countries | | | |
| Pregnancy & Childbirth | 2012 | Pulmonary artery flow catheters for directing management in pre-eclampsia | | | |
| Pregnancy & Childbirth | 2012 | Caesarean section for non-medical reasons at term | | | |
| Pregnancy & Childbirth | 2012 | Different magnesium sulphate regimens for neuroprotection of the fetus for women at risk of preterm birth | | | |
| Pregnancy & Childbirth | 2011 | Treatment of valvular heart disease during pregnancy for improving maternal and neonatal outcome | | | |
| Pregnancy & Childbirth | 2011 | Haematological interventions for treating disseminated intravascular coagulation during pregnancy and postpartum | | | |
| Pregnancy & Childbirth | 2011 | Antenatal interventions for preventing the transmission of cytomegalovirus (CMV) from the mother to fetus during pregnancy and adverse outcomes in the congenitally infected infant | | | |
| Pregnancy & Childbirth | 2010 | Alternative positions for the baby at birth before clamping the umbilical cord | | | |

Table 5: Circulation and Breathing Network CRGs

| CRG | Year | Title | | | |
|--------------|------|--|--|--|--|
| Airways | 2018 | Continuous versus intermittent antibiotics for bronchiectasis | | | |
| Airways | 2018 | Oral versus inhaled antibiotics for bronchiectasis | | | |
| Airways | 2016 | Patient- and parent-initiated oral steroids for asthma exacerbations | | | |
| | | Inhaled corticosteroids with combination inhaled long-acting beta2-agonists and long-acting muscarinic antagonists | | | |
| Airways | 2016 | for chronic obstructive pulmonary disease | | | |
| Airways | 2016 | Codeine versus placebo for chronic cough in children | | | |
| Airways | 2015 | Interventions for enhancing adherence to treatment in adults with bronchiectasis | | | |
| | | Pulse oximeters to self monitor oxygen saturation levels as part of a personalised asthma action plan for people | | | |
| Airways | 2015 | with asthma | | | |
| | | Stopping long-acting beta2-agonists (LABA) for children with asthma well controlled on LABA and inhaled | | | |
| Airways | 2015 | <u>corticosteroids</u> | | | |
| Airways | 2014 | Anticoagulation therapy versus placebo for pulmonary hypertension | | | |
| Airways | 2013 | Breathing exercises for dysfunctional breathing/hyperventilation syndrome in children | | | |
| Airways | 2012 | Alexander technique for chronic asthma | | | |
| Airways | 2012 | Restriction of oral intake of water for aspiration lung disease in children | | | |
| Airways | 2011 | Treatment of obstructive sleep apnoea for chronic cough in children | | | |
| Heart | 2015 | Yoga for secondary prevention of coronary heart disease | | | |
| Heart | 2013 | Psychological interventions for depression in adolescent and adult congenital heart disease | | | |
| Heart | 2013 | Antibiotics for brain abscesses in people with cyanotic congenital heart disease | | | |
| Hypertension | 2020 | Screening strategies for hypertension | | | |
| Hypertension | 2014 | <u>First-line beta-blockers versus other antihypertensive medications for chronic type B aortic dissection</u> | | | |
| Hypertension | 2012 | Tianma Gouteng Yin Formula for treating primary hypertension | | | |
| Hypertension | 2011 | Hydralazine for essential hypertension | | | |
| Stroke | 2021 | Surgical and radiological interventions for treating symptomatic extracranial cervical artery dissection | | | |

| | | Anti-inflammatory therapy for preventing stroke and other vascular events after ischaemic stroke or transient |
|----------|------|--|
| Stroke | 2020 | ischaemic attack |
| Stroke | 2013 | Early versus delayed mobilisation for aneurysmal subarachnoid haemorrhage |
| Stroke | 2012 | Interventions for age-related visual problems in patients with stroke |
| Stroke | 2010 | Antithrombotic drugs for carotid artery dissection |
| Vascular | 2021 | Hybrid repair versus conventional open repair for aortic arch dissection |
| Vascular | 2021 | Hybrid repair versus conventional open repair for thoracic aortic arch aneurysms |
| Vascular | 2021 | Endoluminal interventions versus surgical interventions for stenosis in vein grafts following infrainguinal bypass |
| Vascular | 2020 | <u>Presurgery exercise-based conditioning interventions (prehabilitation) in adults undergoing lower limb surgery for peripheral arterial disease</u> |
| Vascular | 2020 | Surgical and medical interventions for abdominal aortic graft infections |
| Vascular | 2020 | Internal iliac artery revascularisation versus internal iliac artery occlusion for endovascular treatment of aorto-iliac aneurysms |
| Vascular | 2020 | Anticoagulant treatment for subsegmental pulmonary embolism |
| Vascular | 2019 | Combined proximal descending aortic endografting plus distal bare metal stenting (PETTICOAT technique) versus conventional proximal descending aortic stent graft repair for complicated type B aortic dissections |
| Vascular | 2019 | Thoracic endovascular repair (TEVAR) versus open surgery for blunt traumatic thoracic aortic injury |
| Vascular | 2018 | Rutosides for prevention of post-thrombotic syndrome |
| Vascular | 2018 | Controlled hypotension versus normotensive resuscitation strategy for people with ruptured abdominal aortic aneurysm |
| Vascular | 2017 | Thrombolysis for acute upper extremity deep vein thrombosis |
| Vascular | 2016 | <u>Lumbar sympathectomy techniques for critical lower limb ischaemia due to non-reconstructable peripheral arterial disease</u> |
| Vascular | 2016 | Pharmacomechanical thrombectomy for iliofemoral deep vein thrombosis |
| Vascular | 2016 | Intravenous heparin during ruptured abdominal aortic aneurysmal repair |
| Vascular | 2016 | Thoracic stent graft versus surgery for thoracic aneurysm |
| Vascular | 2016 | Revascularisation of the left subclavian artery for thoracic endovascular aortic repair |
| Vascular | 2015 | Stent graft types for endovascular repair of thoracic aortic aneurysms |

| Vascular | 2015 | t graft types for endovascular repair of abdominal aortic aneurysms | |
|----------|------|--|--|
| Vascular | 2015 | Endovascular repair versus open repair for inflammatory abdominal aortic aneurysms | |
| Vascular | 2014 | Angioplasty versus stenting for subclavian artery stenosis | |
| Vascular | 2014 | Screening for peripheral arterial disease | |
| Vascular | 2012 | hrombophilia testing for prevention of recurrent venous thromboembolism | |
| Vascular | 2012 | tent placement versus surgery for coarctation of the thoracic aorta | |
| Vascular | 2012 | Distal aortic perfusion during thoracoabdominal aneurysm repair for prevention of paraplegia | |

Table 6: Mental Health and Neuroscience Network CRGs

| CRG | Year | Title |
|---|------|--|
| Common Mental Disorders | 2020 | Means restriction for the prevention of suicide on roads |
| Common Mental Disorders | 2020 | Interventions for the management of obesity in people with bipolar disorder |
| Common Mental Disorders | 2014 | Alternating current cranial electrotherapy stimulation (CES) for depression |
| Common Mental Disorders | 2012 | <u>Tiagabine for acute affective episodes in bipolar disorder</u> |
| Common Mental Disorders | 2011 | <u>Tiagabine in the maintenance treatment of bipolar disorder</u> |
| Dementia and Cognitive Improvement | 2017 | Assistive technology for memory support in dementia |
| Dementia and Cognitive Improvement | 2017 | Dance movement therapy for dementia |
| Dementia and Cognitive Improvement | 2016 | Statin withdrawal in people with dementia |
| Dementia and Cognitive Improvement | 2015 | Opioids for agitation in dementia |
| Dementia and Cognitive Improvement | 2013 | <u>Driving assessment for maintaining mobility and safety in drivers with dementia</u> |
| | | Flow-regulated versus differential pressure-regulated shunt valves for adult |
| Dementia and Cognitive Improvement | 2013 | patients with normal pressure hydrocephalus |
| Dementia and Cognitive Improvement | 2012 | Huperzine A for mild cognitive impairment |
| Developmental, Psychosocial & Learning Problems | 2017 | Family therapy for autism spectrum disorders |
| Developmental, Psychosocial & Learning Problems | 2015 | Clozapine for psychotic disorders in adults with intellectual disabilities |
| | | Auditory-verbal therapy for promoting spoken language development in children |
| Developmental, Psychosocial & Learning Problems | 2014 | with permanent hearing impairments |

| | | Fundoplication versus postoperative medication for gastro-oesophageal reflux in |
|---|------|---|
| Developmental, Psychosocial & Learning Problems | 2013 | children with neurological impairment undergoing gastrostomy |
| · · · · · · · · · · · · · · · · · · · | | Psychoanalytic/psychodynamic psychotherapy for children and adolescents who |
| Developmental, Psychosocial & Learning Problems | 2013 | have been sexually abused |
| Developmental, Psychosocial & Learning Problems | 2013 | Gastrostomy feeding versus oral feeding alone for children with cerebral palsy |
| | | Music education for improving reading skills in children and adolescents with |
| Developmental, Psychosocial & Learning Problems | 2012 | <u>dyslexia</u> |
| Developmental, Psychosocial & Learning Problems | 2012 | <u>Crisis interventions for people with borderline personality disorder</u> |
| Developmental, Psychosocial & Learning Problems | 2011 | Melatonin for non-respiratory sleep disorders in visually impaired children |
| | | Acupuncture for Attention Deficit Hyperactivity Disorder (ADHD) in children and |
| Developmental, Psychosocial & Learning Problems | 2011 | <u>adolescents</u> |
| | | QTc interval screening for cardiac risk in methadone treatment of opioid |
| Drugs & Alcohol | 2013 | <u>dependence</u> |
| | | Managed alcohol as a harm reduction intervention for alcohol addiction in |
| Drugs & Alcohol | 2012 | populations at high risk for substance abuse |
| Drugs & Alcohol | 2010 | <u>Treatment for inhalant dependence and abuse</u> |
| | | Pharmacological treatment for continuous spike-wave during slow wave sleep |
| Epilepsy | 2020 | syndrome and Landau-Kleffner Syndrome |
| Epilepsy | 2020 | Clonazepam add-on therapy for drug-resistant epilepsy |
| Epilepsy | 2020 | EEG for children with complex febrile seizures |
| Epilepsy | 2018 | Subpial transection surgery for epilepsy |
| | | Antiepileptic drugs for the primary and secondary prevention of seizures in viral |
| Epilepsy | 2016 | <u>encephalitis</u> |
| Epilepsy | 2016 | Pharmacological treatment for Kleine-Levin syndrome |
| | | Antiepileptic drugs for the primary and secondary prevention of seizures after |
| Epilepsy | 2016 | intracranial venous thrombosis |
| | | Antiepileptic drugs for the primary and secondary prevention of seizures after |
| Epilepsy | 2013 | subarachnoid haemorrhage |
| | | The effects of anaesthetic agents on cortical mapping during neurosurgical |
| Epilepsy | 2011 | procedures involving eloquent areas of the brain |

| Movement Disorders | 2020 | Botulinum toxin type A therapy for hemifacial spasm |
|-------------------------------|------|---|
| Movement Disorders | 2017 | Benzodiazepines for restless legs syndrome |
| Movement Disorders | 2016 | Speech therapy for children with dysarthria acquired before three years of age |
| Movement Disorders | 2013 | Botulinum toxin for masseter hypertrophy |
| | | Biologics, colchicine, corticosteroids, immunosuppressants and interferon-alpha |
| MS & Rare Diseases of the CNS | 2014 | <u>for Neuro-Behçet's Syndrome</u> |
| Neuromuscular | 2019 | Assisted standing for Duchenne muscular dystrophy |
| | | Invasive versus non-invasive ventilation for acute respiratory failure in |
| Neuromuscular | 2017 | neuromuscular disease and chest wall disorders |
| Neuromuscular | 2017 | Drug therapy for chronic idiopathic axonal polyneuropathy |
| Neuromuscular | 2015 | Treatment for dysphagia (swallowing difficulties) in hereditary ataxia |
| Neuromuscular | 2015 | Surgery for scoliosis in Duchenne muscular dystrophy |
| Neuromuscular | 2015 | Physical rehabilitation for critical illness myopathy and neuropathy |
| | | Ephedrine for myasthenia gravis, neonatal myasthenia and the congenital |
| Neuromuscular | 2014 | <u>myasthenic syndromes</u> |
| Neuromuscular | 2013 | Immunotherapy for idiopathic lumbosacral plexopathy |
| Neuromuscular | 2013 | Thymectomy for non-thymomatous myasthenia gravis |
| Neuromuscular | 2013 | Drug therapy for pain in amyotrophic lateral sclerosis or motor neuron disease |
| Neuromuscular | 2012 | <u>Treatment for paraneoplastic neuropathies</u> |
| Neuromuscular | 2012 | <u>Treatment for meralgia paraesthetica</u> |
| | | Treatment for POEMS (polyneuropathy, organomegaly, endocrinopathy, M- |
| Neuromuscular | 2012 | protein, and skin changes) syndrome |
| Neuromuscular | 2012 | Hyperbaric oxygen therapy for Bell's palsy |
| Neuromuscular | 2011 | Physical training for McArdle disease |
| Neuromuscular | 2011 | Enteral tube feeding for amyotrophic lateral sclerosis/motor neuron disease |
| Neuromuscular | 2010 | Multidisciplinary care for Guillain-Barré syndrome |
| Schizophrenia | 2009 | <u>Treatments for primary delusional infestation</u> |
| Schizophrenia | 2019 | Yoga as part of a package of care versus non-standard care for schizophrenia |
| Schizophrenia | 2018 | Occupational therapy delivered by specialists versus non-specialists for people |

| | | with schizophrenia |
|---------------|------|--|
| | | Different communication strategies for disclosing a diagnosis of schizophrenia and |
| Schizophrenia | 2017 | <u>related disorders</u> |
| Schizophrenia | 2017 | De-escalation techniques for psychosis-induced aggression or agitation |
| | | Interventions to encourage uptake of cancer screening for people with severe |
| Schizophrenia | 2016 | mental illness |
| Schizophrenia | 2016 | HIV prevention advice for people with serious mental illness |
| Schizophrenia | 2016 | Pharmacological interventions for clozapine-induced sinus tachycardia |
| Schizophrenia | 2016 | <u>Dietary advice for people with schizophrenia</u> |
| Schizophrenia | 2016 | Smoking cessation advice for people with serious mental illness |
| Schizophrenia | 2015 | 'As required' medication regimens for seriously mentally ill people in hospital |
| Schizophrenia | 2015 | Cognitive behavioural therapy (brief versus standard duration) for schizophrenia |
| Schizophrenia | 2014 | Physical health care monitoring for people with serious mental illness |
| | | Anticholinergic medication for non-clozapine neuroleptic-induced hypersalivation |
| Schizophrenia | 2013 | in people with schizophrenia |
| Schizophrenia | 2013 | Preventive interventions for postnatal psychosis |

Table 7: Musculoskeletal, Oral, Skin and sensory Network CRGs

| CRG | Year | Title |
|-------------|------|---|
| Back & Neck | 2015 | Surgical versus non-surgical interventions in people with adolescent idiopathic scoliosis |
| | | Antimicrobial mouthwashes (gargling) and nasal sprays to protect healthcare workers when undertaking aerosol-generating procedures (AGPs) on patients without suspected or confirmed |
| ENT | 2020 | COVID-19 infection |
| ENT | 2020 | <u>Use of antimicrobial mouthwashes (gargling) and nasal sprays by healthcare workers to protect them when treating patients with suspected or confirmed COVID-19 infection</u> |
| ENT | 2020 | Antimicrobial mouthwashes (gargling) and nasal sprays administered to patients with suspected or confirmed COVID-19 infection to improve patient outcomes and to protect healthcare workers treating them |
| ENT | 2018 | Restriction of salt, caffeine and alcohol intake for the treatment of Ménière's disease or syndrome |

| | | De-intensified adjuvant (chemo)radiotherapy versus standard adjuvant chemoradiotherapy post |
|---------------|------|---|
| ENT | 2018 | transoral minimally invasive surgery for resectable HPV-positive oropharyngeal carcinoma |
| | | Minimally invasive surgery versus radiotherapy/chemoradiotherapy for small-volume primary |
| ENT | 2016 | oropharyngeal carcinoma |
| ENT | 2015 | Screening for nasopharyngeal cancer |
| ENT | 2015 | Antibiotics for preventing recurrent sore throat |
| ENT | 2015 | Pharmacological agents for the prevention of vestibular migraine |
| | | Steroid-eluting sinus stents for improving symptoms in chronic rhinosinusitis patients undergoing |
| ENT | 2015 | functional endoscopic sinus surgery |
| ENT | 2015 | Interventions for the treatment of Frey's syndrome |
| ENT | 2014 | Stereotactic radiotherapy for vestibular schwannoma |
| ENT | 2014 | Surgical interventions for chronic rhinosinusitis with nasal polyps |
| | | De-escalation treatment protocols for human papillomavirus-associated oropharyngeal squamous |
| ENT | 2014 | <u>cell carcinoma</u> |
| ENT | 2013 | Hyperbaric oxygen as an adjuvant treatment for malignant otitis externa |
| ENT | 2012 | Alternative injectable materials for vocal fold medialisation in unilateral vocal fold paralysis |
| ENT | 2012 | Surgical versus non-surgical interventions for vocal cord nodules |
| ENT | 2012 | Surgery for congenital choanal atresia |
| ENT | 2012 | Interventions for atrophic rhinitis |
| ENT | 2010 | <u>Inferior turbinate surgery for nasal obstruction in allergic rhinitis after failed medical treatment</u> |
| | | Adjunctive modulation of wound healing during cataract surgery to promote survival of a previous |
| Eyes & Vision | 2021 | <u>trabeculectomy</u> |
| | | Systemic interventions for severe atopic and vernal keratoconjunctivitis in children and young people |
| Eyes & Vision | 2020 | up to the age of 16 years |
| Eyes & Vision | 2020 | Topical mydriatics as adjunctive therapy for traumatic iridocyclitis |
| Eyes & Vision | 2020 | Artificial corneas versus donor corneas for repeat corneal transplants |
| Eyes & Vision | 2020 | Telerehabilitation for people with low vision |
| Eyes & Vision | 2019 | Interventions for orbital lymphangioma |
| Eyes & Vision | 2019 | Intrastromal corneal ring segments for treating keratoconus |

| Eyes & Vision | 2019 | Endoscopic cyclophotocoagulation (ECP) for open angle glaucoma and primary angle closure | | |
|---------------|------|---|--|--|
| | | Anti-tumour necrosis factor biological therapies for the treatment of uveitic macular oedema (UMO) | | |
| Eyes & Vision | 2018 | for non-infectious uveitis | | |
| Eyes & Vision | 2018 | Subconjunctival draining minimally-invasive glaucoma devices for medically uncontrolled glaucoma | | |
| Eyes & Vision | 2018 | <u>Tocilizumab for thyroid eye disease</u> | | |
| | | Implantable miniature telescope (IMT) for vision loss due to end-stage age-related macular | | |
| Eyes & Vision | 2018 | <u>degeneration</u> | | |
| Eyes & Vision | 2018 | Surgery for postvitrectomy cataract | | |
| Eyes & Vision | 2017 | <u>Interventions for the management of CMV-associated anterior segment inflammation</u> | | |
| Eyes & Vision | 2017 | Focal laser treatment in addition to chemotherapy for retinoblastoma | | |
| Eyes & Vision | 2017 | Nd:YAG laser vitreolysis versus pars plana vitrectomy for vitreous floaters | | |
| Eyes & Vision | 2017 | Corticosteroids as adjuvant therapy for ocular toxoplasmosis | | |
| Eyes & Vision | 2017 | Non-surgical interventions for acute internal hordeolum | | |
| Eyes & Vision | 2016 | Systemic treatment for blepharokeratoconjunctivitis in children | | |
| | | Psychosocial interventions for improving quality of life outcomes in adults undergoing strabismus | | |
| Eyes & Vision | 2016 | <u>surgery</u> | | |
| | | Binocular versus standard occlusion or blurring treatment for unilateral amblyopia in children aged | | |
| Eyes & Vision | 2015 | three to eight years | | |
| Eyes & Vision | 2015 | Assistive technology for children and young people with low vision | | |
| Eyes & Vision | 2015 | Optical reading aids for children and young people with low vision | | |
| Eyes & Vision | 2015 | Topical non-steroidal anti-inflammatory agents for diabetic cystoid macular oedema | | |
| Eyes & Vision | 2014 | Mohs micrographic surgery versus surgical excision for periocular basal cell carcinoma | | |
| Eyes & Vision | 2014 | Strabismus surgery before versus after completion of amblyopia therapy in children | | |
| | | Interventions for asymptomatic retinal breaks and lattice degeneration for preventing retinal | | |
| Eyes & Vision | 2014 | <u>detachment</u> | | |
| Eyes & Vision | 2014 | Aspirin as adjunctive treatment for giant cell arteritis | | |
| Eyes & Vision | 2014 | Antimetabolites in cataract surgery to prevent failure of a previous trabeculectomy | | |
| Eyes & Vision | 2014 | <u>Interventions for Mooren's ulcer</u> | | |
| Eyes & Vision | 2014 | Complement inhibitors for age-related macular degeneration | | |

| Eyes & Vision | 2013 | Interventions for infantile esotropia | |
|-----------------|------|--|--|
| Eyes & Vision | 2013 | Surgery for traumatic optic neuropathy | |
| Eyes & Vision | 2013 | Rituximab for thyroid-associated ophthalmopathy | |
| | | Photorefractive keratectomy (PRK) versus laser assisted in situ keratomileusis (LASIK) for hyperopia | |
| Eyes & Vision | 2012 | correction | |
| Eyes & Vision | 2012 | Interventions for prevention of giant retinal tear in the fellow eye | |
| Musculoskeletal | 2014 | Surgery for treating hip impingement (femoroacetabular impingement) | |
| Musculoskeletal | 2013 | Intra-articular glucocorticoids for acute gout | |
| Musculoskeletal | 2011 | Pain management for rheumatoid arthritis and cardiovascular or renal comorbidity | |
| | | Antimicrobial mouthwashes (gargling) and nasal sprays to protect healthcare workers when | |
| | | undertaking aerosol-generating procedures (AGPs) on patients without suspected or confirmed | |
| Oral | 2020 | COVID-19 infection | |
| | | Use of antimicrobial mouthwashes (gargling) and nasal sprays by healthcare workers to protect them | |
| Oral | 2020 | when treating patients with suspected or confirmed COVID-19 infection | |
| | | Antimicrobial mouthwashes (gargling) and nasal sprays administered to patients with suspected or | |
| | | confirmed COVID-19 infection to improve patient outcomes and to protect healthcare workers | |
| Oral | 2020 | treating them | |
| Oral | 2018 | Interventions for treating post-extraction bleeding | |
| Oral | 2018 | Orthodontic treatment for deep bite and retroclined upper front teeth in children | |
| Oral | 2015 | Interventions for treating traumatised ankylosed permanent front teeth | |
| Oral | 2015 | Magnification devices for endodontic therapy | |
| Oral | 2015 | Interventions for the management of external root resorption | |
| Oral | 2015 | Interventions for the treatment of keratocystic odontogenic tumours | |
| Oral | 2014 | Replacement versus repair of defective restorations in adults: resin composite | |
| Oral | 2014 | Replacement versus repair of defective restorations in adults: amalgam | |
| Oral | 2013 | Antibacterial agents in composite restorations for the prevention of dental caries | |
| Oral | 2013 | <u>Interventions for managing relapse of the lower front teeth after orthodontic treatment</u> | |
| | | Interventions for replacing missing teeth: dental implants in zygomatic bone for the rehabilitation of | |
| Oral | 2013 | the severely deficient edentulous maxilla | |

| Oral | 2013 | Interventions for the restorative care of amelogenesis imperfecta in children and adolescents | |
|---------------------------------|------|--|--|
| Oral | 2013 | Interventions for treating traumatised permanent front teeth: luxated (dislodged) teeth | |
| | | Dental extractions prior to radiotherapy to the jaws for reducing post-radiotherapy dental | |
| Oral | 2013 | complications | |
| Pain, Palliative and Supportive | | High-dose opioids for chronic non-cancer pain: an overview of Cochrane Reviews | |
| Care | 2017 | High-dose opiolas for chronic non-cancer pain, an overview of cochrane keviews | |
| Pain, Palliative and Supportive | | Paracetamol (acetaminophen) for chronic non-cancer pain in children and adolescents | |
| Care | 2017 | <u>Paracetarilor (acetarilinoprierr) for chronic flori-cancer pairrin children and adolescents</u> | |
| Pain, Palliative and Supportive | | Opioids for chronic non-cancer pain in children and adolescents | |
| Care | 2017 | Opiolas for Chronic Horr-caricer pain in Children and adolescents | |
| Pain, Palliative and Supportive | | Non-steroidal anti-inflammatory drugs (NSAIDs) for cancer-related pain in children and adolescents | |
| Care | 2017 | Non-steroidal anti-initiation y drugs (NSAIDS) for cancer-related pain in children and adolescents | |
| Pain, Palliative and Supportive | | Opioids for cancer-related pain in children and adolescents | |
| Care | 2017 | Opiolas for cancer-related paint in children and adolescents | |
| Pain, Palliative and Supportive | | Drug therapy for symptoms associated with anxiety in adult palliative care patients | |
| Care | 2017 | | |
| Pain, Palliative and Supportive | | Paracetamol (acetaminophen) with or without codeine or dihydrocodeine for neuropathic pain in | |
| Care | 2016 | <u>adults</u> | |
| Pain, Palliative and Supportive | | Oxycodone for pain in fibromyalgia in adults | |
| Care | 2016 | Oxycodone for paint in tioromydigia in ddates | |
| Pain, Palliative and Supportive | | Levomepromazine for nausea and vomiting in palliative care | |
| Care | 2015 | <u>Levolnepromazme for hadsed and vorniting in painative care</u> | |
| Pain, Palliative and Supportive | | Buprenorphine for neuropathic pain in adults | |
| Care | 2015 | <u>Buprenorphine for neuropatine paintin adults</u> | |
| Pain, Palliative and Supportive | | Positioning and spinal bracing for pain relief in metastatic spinal cord compression in adults | |
| Care | 2015 | 1 ostrorning and spirial stading for pain relief in metastatic spirial cord compression in dualis | |
| Pain, Palliative and Supportive | | Transcutaneous electrical nerve stimulation (TENS) for phantom pain and stump pain following | |
| Care | 2015 | amputation in adults | |
| Pain, Palliative and Supportive | | Dranavidal for treatment of payees and vamiting in pollictive care nationts | |
| Care | 2014 | <u>Droperidol for treatment of nausea and vomiting in palliative care patients</u> | |
| Pain, Palliative and Supportive | | Medically assisted nutrition for adult palliative care patients | |
| Care | 2014 | inedically assisted flutification for addit palliative care patients | |

| Pain, Palliative and Supportive Care | 2012 | Clonazepam for neuropathic pain and fibromyalgia in adults |
|---|------|---|
| Pain, Palliative and Supportive Care | 2012 | Phenytoin for neuropathic pain and fibromyalgia in adults |
| Skin | 2013 | Oral H1 antihistamines as monotherapy for eczema |
| Wounds | 2018 | Extracorporeal shock wave therapy for the healing and management of venous leg ulcers |
| Wounds | 2016 | Reconstructive surgery for treating pressure ulcers |
| Wounds | 2016 | Bed rest for pressure ulcer healing in wheelchair users |
| Wounds | 2016 | A 'test and treat' strategy for elevated wound protease activity for healing in venous leg ulcers |
| Wounds | 2015 | Wound-care teams for preventing and treating pressure ulcers |
| | | Gloves, gowns and masks for reducing the transmission of meticillin-resistant Staphylococcus aureus |
| Wounds | 2015 | (MRSA) in the hospital setting |
| Wounds | 2015 | Massage therapy for preventing pressure ulcers |
| | | Skin preparation with alcohol versus alcohol followed by any antiseptic for preventing bacteraemia |
| Wounds | 2015 | or contamination of blood for transfusion |
| Wounds | 2015 | Repositioning for treating pressure ulcers |
| Wounds | 2014 | Wound drainage following groin dissection for malignant disease in adults |
| Wounds | 2014 | Chinese herbal medicines for treating skin and soft-tissue infections |
| Wounds | 2013 | Primary closure versus delayed closure for non bite traumatic wounds within 24 hours post injury |
| Wounds | 2013 | Endovenous thermal ablation for healing venous ulcers and preventing recurrence |

Table 8: Public Health and Health Systems

| CRG | Year | Title |
|---------------------------|------|--|
| Consumers & Communication | 2015 | <u>Training and supportive programs for palliative care volunteers in community settings</u> |
| Consumers & Communication | 2015 | Provision of a surgeon's performance data for people considering elective surgery |
| Consumers & Communication | 2012 | Email for the coordination of healthcare appointments and attendance reminders |
| Consumers & Communication | 2012 | Email for communicating results of diagnostic medical investigations to patients |

| | | Notification and support for people exposed to the risk of Creutzfeldt-Jakob disease (CJD) (or |
|---|------|--|
| Consumers & Communication | 2011 | other prion diseases) through medical treatment (iatrogenically) |
| | | Collaborative writing applications in healthcare: effects on professional practice and |
| Effective Practice & Organisation of Care | 2017 | <u>healthcare outcomes</u> |
| | | Walk-in clinics versus physician offices and emergency rooms for urgent care and chronic |
| Effective Practice & Organisation of Care | 2017 | disease management |
| Effective Practice & Organisation of Care | 2014 | Exit interviews to reduce turnover amongst healthcare professionals |
| | | Effectiveness of different nursing handover styles for ensuring continuity of information in |
| Effective Practice & Organisation of Care | 2014 | hospitalised patients |
| | | Financial interventions and movement restrictions for managing the movement of health |
| Effective Practice & Organisation of Care | 2014 | workers between public and private organizations in low- and middle-income countries |
| Effective Practice & Organisation of Care | 2011 | Interventions to manage dual practice among health workers |
| | | The effectiveness of strategies to change organisational culture to improve healthcare |
| Effective Practice & Organisation of Care | 2011 | <u>performance</u> |
| | | Contact tracing strategies in household and congregate environments to identify cases of |
| Infectious Diseases | 2019 | tuberculosis in low- and moderate-incidence populations |
| Infectious Diseases | 2018 | Nutritional supplements for patients being treated for active visceral leishmaniasis |
| Infectious Diseases | 2011 | Active case finding in contacts of people with tuberculosis |
| | | Antiandrogen or estradiol treatment or both during hormone therapy in transitioning |
| Tobacco Addiction | 2020 | <u>transgender women</u> |
| Tobacco Addiction | 2016 | Smoking cessation interventions for pulmonary tuberculosis treatment outcomes |
| Tobacco Addiction | 2012 | Lobeline for smoking cessation |
| | | Vocational rehabilitation for enhancing return-to-work in workers with traumatic upper limb |
| Work | 2017 | <u>injuries</u> |
| | | Interventions for preventing the spread of infestation in close contacts of people with |
| Work | 2014 | <u>scabies</u> |

Figure 2: The proportion of empty reviews published by CRGs.

