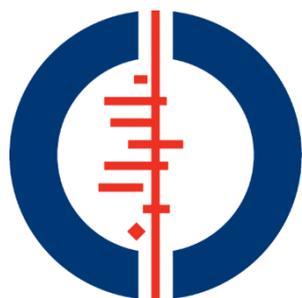


20 YEARS



ANNUAL REPORT

2019-2020

**Cochrane Anaesthesia
& Cochrane Emergency and Critical Care**



**Trusted evidence.
Informed decisions.
Better health.**



**Herlev
Hospital**

Where to find us

Contact

Teo Quay, Managing Editor: teo.aminah.wasteneys.quay@regionh.dk

Websites

[Cochrane Anaesthesia](#)

[Cochrane Emergency and Critical Care](#)

Social Media



[@Cochrane_ACE](#)



[@CochraneACE](#)



[LinkedIn Profile](#)

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We are pleased to present our 2019-2020 Annual Report outlining achievements and activities over the past year¹

Focus

This year has been one of reflection and transition. We started the year with some core staffing changes but have begun to catch our stride with the reconfiguration from one to two separate (but collaborative) Cochrane Review Groups. We continue our focus on curating high priority titles of the greatest potential impact, encouraging pioneering authors to adopt complex review methods and strategic dissemination of our evidence. This all while maintaining our existing portfolio of 145 (Anaesthesia) and 123 (Emergency and Critical Care) reviews. This year we also celebrated our 20th anniversary. Since forming in 2000, our groups have strived to shape the evidence base in perioperative care and emergency medicine.

We have also had to face some unique challenges this year as the result of the COVID-19 pandemic. Global health crises are a reminder of how critical evidence synthesis is to health systems. We were fortunate to be able to support Cochrane's collective effort through the production of several Special Collections and support of several ongoing Rapid Reviews and Rapid Updates on priority stakeholder-identified topics of relevance to care of individuals with COVID-19.

Changes

Our groups continue to be led by Andy Smith (Anaesthesia) and Harald Herkner (Emergency and Critical Care), and core operations across both groups are overseen by Teo Quay (Managing Editor) and Janne Vendt (Cochrane Information Specialist). One new editor has joined the Cochrane Anaesthesia team, and we also welcomed two inaugural Clinical Dissemination Fellows.

This year we have also begun to implement the new edition of the Cochrane Handbook and the new RevMan platform, RevMan Web, in our editorial process. Several of our author teams also joined the Risk of Bias 2 pilot, as early adopters of this updated critical appraisal tool. We continue to register reviews with complex methodologies, including network meta-analyses, diagnostic test accuracy reviews, and prognosis methods reviews, and encourage our author teams to adopt the latest methods and standards.

Our processes

We continue to hold joint monthly editorial board teleconferences. Twice a year, we dedicate these teleconferences to consideration of new titles. Last year, we finalized our priority-setting strategies and operational plans for both groups and have been busy executing them with the aim to complete them in 2020. We have also introduced a dissemination checklist, to help our Cochrane Review Group (CRG) and author teams create strategies to achieve maximum impact of the reviews. We have updated our editorial processes and author resources to reflect organizational changes and the introduction of new Cochrane standards and tools to best support our authors. All resources are available on our websites.

¹ Please note that the time period reflected by the statistics presented in this support varies. Impact statistics are collected for the previous year (2018) by Wiley, whereas publication statistics reflect the 2019-2020 period. Some observations from January to April 2020 are also included.

Our publications

The publications summarized in this report reflect the period from January 2019 to December 2019. Some observations from the first quarter of 2020 are included. Four of the updates published were awarded UK National Institute for Health Research Cochrane Incentive Funding. As a reflection of our ongoing priority-setting process and as a result of the review group restructuring, new title registrations and protocols are carefully controlled.

Anaesthesia

In 2019, we published 11 reviews including four new reviews and seven review updates (see Table 1)

Emergency and Critical Care

In 2019, we published ten reviews, including seven new reviews and three updates. We also published two new protocols (see Table 2, Table 3)

See the **Publication summary** section for more details.

Impacts

We continue expanding our efforts to ensure that our reviews are widely accessed and utilized after publication. We gauge our impact through various methods including monitoring of citation rates, review downloads, and other measures of interest such as Altmetric attention scores (a weighted count of all the online attention for a publication) as tracked by our publisher, Wiley. We also track the use of our evidence in national and international guidelines and clinical support tools.

More information is available in the **Impact summary** section.

Funding

The funding we receive from the Danish Government and Capital Health Region is matched many times over by the unpaid, voluntary contributions of our editors, authors, and peer reviewers worldwide.

In 2019, we also fulfilled 3 Cochrane Incentive Funding awards and were awarded a further £20 000 GBP to produce two complex reviews from the UK National Institute of Health Research.

Our team

Our **Editorial Office** is located at Herlev Hospital, Herlev, Denmark.



From left to right: Janne Vendt, Karin Frydenlund Jespersen, Teo Quay, Ann Møller, Andrew Smith, Harald Herkner

Our core staff include:

- Andrew Smith, Professor of Anaesthesia, Co-ordinating Editor, Cochrane Anaesthesia
- Harald Herkner, Professor of Emergency Medicine, Co-ordinating Editor, Cochrane Emergency and Critical Care
- Ann M. Møller, Professor of Anaesthesiology, Financial Director
- Teo Quay, Managing Editor
- Janne Vendt, Cochrane Information Specialist
- Monika Afzali Rubin, Editorial Assistant
- Karin Frydenlund Jespersen, Administrative Co-ordinator

Our Editors

Our editors come from many parts of the world. This year, we welcomed several new team members, including two inaugural Clinical Dissemination Fellows, based in the UK, and a new CARG editor, Michael Heesen (Switzerland).



We would also like to express our gratitude to Jane Cracknell, previous Managing Editor for 18 years of distinguished service and for supporting us through our transition.

Content Editors (Anaesthesia):

Ann Møller, Denmark
Anna Lee, Hong Kong SAR
Harald Herkner, Austria
Mike Bennett, Australia
Lars Hyldborg Lundstrøm, Denmark
Stephanie Weibel, Germany
Michael Heesen, Switzerland

Content Editors (Emergency and Critical Care):

Ann Møller, Denmark
Andrew Smith, UK
Anna Lee, Hong Kong SAR
Arash Afshari, Denmark
Nicola Petrucci, Italy
Bronagh Blackwood, UK
Jasmin Arrich, Austria

Statistical Editors:

Cathal D Walsh, Ireland
Jing (Sophia) Xie, Australia
Marialena Trivella, UK
Nathan Pace (Senior Statistical Editor), USA
Susanne Schmitz, Luxembourg
Vibeke Horstmann, Sweden

Consumer Editors:

Janet Walsh, Australia

Feedback Editor:

Jasmin Arrich, Austria

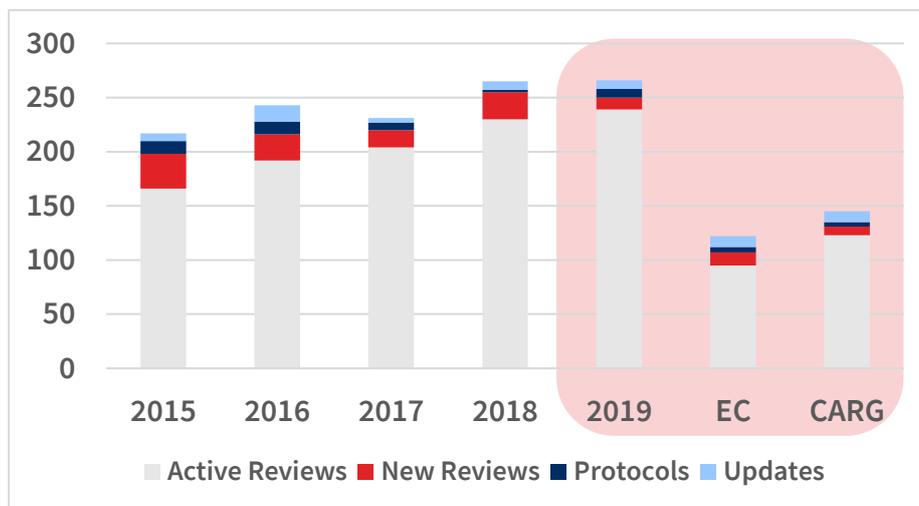
Dissemination Fellows (Anaesthesia):

Michael McEvoy, UK
Muataz Amare, UK

Publication summary

In 2019, we published 12 new reviews and ten updates, as well as two new protocols across our two groups. Continuing from last year, we are registering fewer titles. Consequently, we are publishing fewer new protocols and, thus, fewer new reviews and updates. Our priority-setting exercises² are in progress, and will ultimately result in a curated list of review titles that we will prioritize to over the next three years. Our objective remains 'few, better, reviews'. We would like to thank each author who contributed to our publication success in 2019.

CRG publications from 2015 to 2019



The following tables list our 2019 reviews by group and name. Please share, cite and use them as much as you can! Click on the links to read more.

Anaesthesia

Table 1 Anaesthesia Reviews

| Review Title |
|--|
| <ul style="list-style-type: none">▪ Perioperative beta-blockers for preventing surgery-related mortality and morbidity in adults undergoing cardiac surgery (update)▪ Supplemental perioperative intravenous crystalloids for postoperative nausea and vomiting (new)▪ Postoperative epidural analgesia versus systemic analgesia for thoraco-lumbar spine surgery in children (new)▪ Epidural analgesia for adults undergoing cardiac surgery with or without cardiopulmonary bypass (update)▪ Perioperative beta-blockers for preventing surgery-related mortality and morbidity in adults undergoing non-cardiac surgery (update) |

² <https://ec.cochrane.org/prioritization>; <https://carg.cochrane.org/our-prioritization-process>

- [Perioperative restrictive versus goal-directed fluid therapy for adults undergoing major non-cardiac surgery](#) **(update)**
- [The use of ultrasound guidance for perioperative neuraxial and peripheral nerve blocks in children](#) **(update)**
- [Bispectral index for improving intraoperative awareness and early postoperative recovery in adults](#) **(update)**
- [Adductor canal blocks for postoperative pain treatment in adults undergoing knee surgery](#) **(new)**
- [Transient neurological symptoms \(TNS\) following spinal anaesthesia with lidocaine versus other local anaesthetics in adult surgical patients: a network meta-analysis](#) **(update)**
- [Pharmacological interventions for the prevention of acute postoperative pain in adults following brain surgery](#) **(new)**
- [Postoperative epidural analgesia versus systemic analgesia for thoraco-lumbar spine surgery in children](#) **(new)**

Emergency and Critical Care

Table 2 Emergency and Critical Care Reviews

| Review Title |
|---|
| ▪ Corticosteroids for treating sepsis in children and adults (update) |
| ▪ Higher versus lower fraction of inspired oxygen or targets of arterial oxygenation for adults admitted to the intensive care unit (new) (new) |
| ▪ Early enteral nutrition (within 48 hours) versus delayed enteral nutrition (after 48 hours) with or without supplemental parenteral nutrition in critically ill adults (new) |
| ▪ Plasma interleukin-6 concentration for the diagnosis of sepsis in critically ill adults (new) |
| ▪ Community first responders for out-of-hospital cardiac arrest in adults and children (new) |
| ▪ Buffered solutions versus 0.9% saline for resuscitation in critically ill adults and children (new) |
| ▪ Pharmacological agents for adults with acute respiratory distress syndrome (update) |
| ▪ Pharmacological interventions for the treatment of delirium in critically ill adults (update) |
| ▪ Immunonutrition for acute respiratory distress syndrome (ARDS) in adults (new) |
| ▪ Interventions for preventing high altitude illness: Part 3. Miscellaneous and non-pharmacological interventions (new) |

Table 3 Emergency and Critical Care Protocols

| Review Title |
|--|
| ▪ Chest ultrasonography versus supine chest radiography for diagnosis of pneumothorax in trauma patients in the emergency department |
| ▪ Higher versus lower blood pressure targets in adults with shock |

Impact summary³

The [2018 Cochrane Database of Systematic Reviews \(CDSR\) Journal Impact Factor](#) is 7.755.

Cochrane Review Group Impact Factor

³ The data in this section reflects the 2018-2019 period and is informed by Wiley, Cochrane's publisher.

Anaesthesia

The CRG Impact Factor³ for 2018 was 8.167. Anaesthesia ranks 16 out of 53 Cochrane CRGs based on this metric. It is also ranked higher than any other journal in comparable subject categories. The data shows a consistent increase in impact between 2015 and 2018.

Emergency and Critical Care

The CRG Impact Factor⁴ for 2018 was 9.250. Emergency and Critical Care ranks 11 out of the 53 Cochrane CRGs based on this metric. It also ranks in the top 10 compared to journals in comparable subject categories. The data shows a consistent increase in impact between 2015 and 2018.

Top 5 cited reviews

Five most cited Anaesthesia Reviews (2018)

| Review Title | Date Published | Times Cited |
|---|----------------|-------------|
| Videolaryngoscopy versus direct laryngoscopy for adult patients requiring tracheal intubation | 2016 | 39 |
| Paravertebral block versus thoracic epidural for patients undergoing thoracotomy | 2016 | 31 |
| Active body surface warming systems for preventing complications caused by inadvertent perioperative hypothermia in adults | 2016 | 21 |
| Anaesthesia for hip fracture surgery in adults | 2016 | 20 |
| Efficacy and safety of sugammadex versus neostigmine in reversing neuromuscular blockade in adults | 2017 | 20 |

Five most cited Emergency and Critical Care Reviews (2018)

| Review Title | Date Published | Times Cited |
|---|----------------|-------------|
| Thromboelastography (TEG) or thromboelastometry (ROTEM) to monitor haemostatic treatment versus usual care in adults or children with bleeding | 2016 | 47 |
| Hypothermia for neuroprotection in adults after cardiopulmonary resuscitation | 2016 | 18 |
| Effectiveness and safety of procalcitonin evaluation for reducing mortality in adults with sepsis, severe sepsis or septic shock | 2017 | 17 |
| Inhaled nitric oxide for acute respiratory distress syndrome (ARDS) in children and adults | 2016 | 17 |
| Vasopressors for hypotensive shock | 2016 | 16 |

Top 5 accessed reviews

This data reflects the period before the Anaesthesia, Critical and Emergency Care Group (ACE) was split. Therefore, some titles that were published under the combined group name and now sit with the other group.

Five most accessed Anaesthesia Reviews (2019)

| Review Title | Full-text downloads |
|--------------|---------------------|
|--------------|---------------------|

⁴ Informal statistic calculated by Wiley to reflect the impact of each CRG's output as an individual scientific journal, based on the ratio of the number of citations to the number of publications.

| | |
|--|------|
| Non-pharmacological interventions for sleep promotion in the intensive care unit | 6781 |
| Incentive spirometry for prevention of postoperative pulmonary complications in upper abdominal surgery | 6488 |
| Corticosteroids for treating sepsis | 4974 |
| Music interventions for preoperative anxiety | 4674 |
| Vasopressors for hypotensive shock | 3930 |

Five most accessed Emergency and Critical Care Reviews (2019)

| Review Title | Full-text downloads |
|--|----------------------------|
| Non-pharmacological interventions for sleep promotion in the intensive care unit | 6781 |
| Incentive spirometry for prevention of postoperative pulmonary complications in upper abdominal surgery | 6488 |
| Early intervention (mobilization or active exercise) for critically ill adults in the intensive care unit | 5169 |
| Corticosteroids for treating sepsis | 4974 |
| Music interventions for preoperative anxiety | 4674 |

Top 5 Alternative Metric scores⁵

Five top Altmetric Scores for Anaesthesia Reviews (2018)

| Review Title | Altmetric Attention Score | Context |
|---|----------------------------------|--|
| Airway physical examination tests for detection of difficult airway management in apparently normal adult patients | 67 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age and source |
| Aromatherapy for treatment of postoperative nausea and vomiting | 46 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age and source |
| Continuation versus discontinuation of antiplatelet therapy for bleeding and ischaemic events in adults | 39 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |
| Injectable local anaesthetic agents for dental anaesthesia | 29 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |

⁵ [Altmetric Attention Scores](#) are a quantitative measure of the attention an article receives based on volume of mentions, categories of mentions, and influence of the individual authoring the mention. It is a 'record of attention', 'measure of dissemination', and 'indicator of influence and impact'. The listed values may have changed since they were recorded.

| | | |
|---|----|--|
| Processed electroencephalogram and evoked potential techniques for amelioration of postoperative delirium and cognitive dysfunction following non-cardiac and non-neurosurgical procedures in adults | 19 | In the top 25% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Above-average Attention Score compared to outputs of the same age and source |
|---|----|--|

Five top Altmetric Scores for Emergency and Critical Care Reviews (2018)

| Review Title | Altmetric Attention Score | Context |
|--|----------------------------------|---|
| Early intervention (mobilization or active exercise) for critically ill adults in the intensive care unit | 36 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |
| Interventions for preventing intensive care unit delirium in adults | 36 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |
| Enteral versus parenteral nutrition and enteral versus a combination of enteral and parenteral nutrition for adults | 32 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |
| Melatonin for the promotion of sleep in adults in the intensive care unit | 30 | In the top 5% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |
| Vascular access specialist teams for device insertion and prevention of failure | 24 | In the top 25% of all research outputs scored by Altmetric; High Attention score compared to outputs of the same age; Good Attention Score compared to outputs of the same age and source |

Guideline influence

We employ several methods of tracking our impact on healthcare decision making, including monitoring citations in evidence-based clinical guidelines and quality standards. One source is guideline statistics supplied by Cochrane UK. Their most recent assessment (2017-2019) documented inclusion of CARG and EC reviews in over 80 guidelines. These include national and international guidelines from a variety of clinical societies, associations, and independent guideline development groups. Some notable groups using our evidence include the National Institute for Health and Care Excellence (NICE), the European Society of Intensive Care Medicine, the European Society of Anaesthesia, the Society of Critical Care Medicine, the World Society of Emergency Surgery, Surviving Sepsis, and the International Liaison Committee on Resuscitation guidelines. We also actively participate in guideline development through direct involvement of our editorial team on guideline working groups, and stakeholder engagement opportunities.

In addition, our Cochrane Information Specialist conducts ongoing surveillance of guideline and other high-profile citations of our reviews. This data imparts further awareness of where our reviews are utilized and also alerts us to groups or clinical areas where we might promote our work

COVID-19

Beginning in early 2020 we shifted some of our efforts towards supporting Cochrane initiatives aimed at providing evidence related to the pandemic. Some of this work, including Rapid Updates and Rapid Reviews, is underway.



We also contributed to two COVID-19 Special Collections, one on [evidence related to critical care](#) and one on [regional anaesthesia](#) (to reduce drug use and avoid aerosol generation). As of May 2019, the collections had been viewed over 125 000 and 3500 times, respectively.

Other impact stories

We are proud of the growing diversity of our dissemination efforts. New formats like Cochrane podcasts (e.g., [Colloids and crystalloids for fluid replacement in critically ill people](#), [Aromatherapy for treating postoperative nausea and vomiting](#)) offer a different way to interact with our evidence. Other podcasts also feature our reviews, one recent example being the BMJ podcast, which discussed our review on the use of [corticosteroids in sepsis](#) and its relevance to clinical practice. We also publish co-publications of our reviews in other journals when warranted (e.g., [Bedside tests for predicting difficult airways: an abridged Cochrane diagnostic test accuracy systematic review in Anaesthesia](#)) and collaborate with Cochrane Fields — such as Cochrane Nursing — to create summaries of our reviews for specific clinical audiences. Reviews are also promoted through F1000 recommendations to increase their visibility.

Reacting to healthcare events or circumstances is also an excellent opportunity to improve the utilization of our reviews. In the summer of 2019, we promoted Cochrane evidence to inform treatment decisions in light of the heavy bupivacaine shortage in the UK. We also published several editorials and journal responses on topics directly addressed by our evidence. Accessible platforms like blogs (e.g., Evidently Cochrane) and newsletters also exposed our reviews to wider audiences. We also reach our audience through Twitter, Facebook, LinkedIn, Wikipedia summaries and our websites.

Many of the efforts above were made possible by the contributions of our dissemination fellows and editorial assistant, the Cochrane Knowledge Translation team, and our many partners and stakeholders.

Peer reviewers

Our peer and consumer reviewers come from all over the world. They form an extensive network of unpaid experts who help us maintain clinical focus and methodological quality. We are very grateful to them for their time and efforts. Below you can see the distribution of our peer reviewers in the different continents. We would like to thank our peer and consumer reviewers, and the Cochrane DTA Editorial Team, Cochrane Acute and Emergency Care Network, and Cochrane Methods Support Unit (Editorial & Methods Department) who have contributed to the process of evaluating our reviews in 2018.

Anaesthesia

Neill Adhikari, R. Peter Alston, Federico Bilotta, Benjamin G Chousterman, Birgitte Brandstrup, Anthony Bradley, Roy Buffery, Stephana Cherak, Nelson Chua, Leopold HJ Eberhart, Ben Gibbison, Joanne Guay, Barbara Kabon, Marie Kakhu, Anne Lyddiatt, Ewan D McNicol, Bitu Mesgarpour, Daniel Molano Franco, Atul Malhotra, Andrew Moore, Luis Muñoz, Paul Myles, Padma G Nainar, Jenny Negus, Tudor Phillips, Alexandra Rose, Keith Ruskin, Brian Stafford, Michel Struys, Vaughan L Thomas, Patricia Tong, Jean-Louis Vincent, Janet Wale, Kevin J Walker

Emergency and Critical Care: Neill Adhikari, Djillali Annane, Thomas A Bongers, Edward Burdett, Naomi E Cahill, Benjamin G Chousterman, John W. Devlin, Gordon S Doig, Matthew S. Duprey, Judith Finn, Jonathan M Fuchs, Timothy D. Girard, Kyle Grant, Janet F. Jensen, Andrit Laurens, Lowell Ling, Andreas Loenborg, Andrew MacDuff, Sandra Marini, Daniel Martin, Biswadev Mitra, Rakshit Panwar, Mario Perman, Matiram Pun, Michael C. Reade, Emma Ridley, Russel J. Roberts, Philipp Schuetz, Bill Simpson, Brian Stafford, the Cochrane Diagnostic Test Accuracy Working Group, Patricia Tong, Davoud Vahabzadeh, Janet Wale, Jørn Wetterslev, Jeremy Windsor

Looking Ahead...

We will continue to emphasize fewer, better, priority-setting informed reviews, focus on strategic dissemination, and ensure the sustainability of our editorial process. We also aim to further engage our community throughout the entire lifecycle of the review process to maximize relevance and impact.ⁱ

ⁱ This report is published by Cochrane Anaesthesia & Cochrane Emergency and Critical Care. It is distributed worldwide. The Groups are part of The Cochrane Collaboration (UK registered Charity No. 1045921) Tel: + 45 38689186.