Volume 2 (2012) // Issue 2 // e-ISSN 2224-3453

# European Association of NeuroOncology Magazine

Neurology · Neurosurgery · Medical Oncology · Radiotherapy · Paediatric Neuro-oncology · Neuropathology · Neuroradiology · Neuroimaging · Nursing · Patient Issues

**Are You Interested in Performing Cochrane Reviews in Neuro-Oncology?**

Grant R, Hart M, Quinn G

*European Association of NeuroOncology Magazine 2012; 2 (2) 84-87*

Homepage:

www.kup.at/journals/eano/index.html

Online Database Featuring Author, Key Word and Full-Text Search


The European Association of NeuroOncology

Member of the DOAJ Directory of Open Access Journals

Krause & Pachernegg GmbH · VERLAG für MEDIZIN und WIRTSCHAFT · 3003 Gablitz, Austria

# Are You Interested in Performing Cochrane Reviews in Neuro-Oncology?

Robin Grant[1], Michael Hart[2], Gail Quinn[3]

**Abstract:** In this article, we describe the newly formed Cochrane Neuro-Oncology webpage, which is a simple, fast source to find all Neuro-Oncology-related Cochrane Reviews. We describe where the reviews have been produced and identify areas where no high quality systematic reviews of randomised controlled trials exist. The Cochrane Collaboration is a world-wide, not-for-profit organisation which has information on > 0.6 million randomised controlled trials across all areas of healthcare. We describe the requirements for production of a Cochrane review, online help available, and personal support for prospective reviewers, available through the Cochrane Gynaecological and Orphan Cancer Review Group. **Eur Assoc of NeuroOncol Mag 2012; 2 (2): 84–7.**

**Key words:** evidence-based, randomised controlled trial, review, brain, central nervous system

## Introduction

Neuro-oncologists need to be able to source best evidence for treatment quickly and understand the limitations of the best evidence. Systematic reviews and meta-analyses are integral to good clinical care, as well as forming the basis for planning health services nationally. Systematic reviews should be published according to an internationally recognised standard.

## Cochrane and Reviews

The Cochrane Collaboration is an international, not-for-profit organisation of 28,000 people from over 100 countries, who work together to provide the best available clinical evidence for health professionals and the public (http://www.cochrane.org/). Resources include: the Cochrane Central Register of Controlled Trials database (CENTRAL) with over 600,000 records of randomised trials, technology assessments, economic evaluations, methods studies, and systematic reviews.

Cochrane systematic reviews and meta-analyses are recognised as the highest standard in evidence-based health care. Reviews investigate the effects of interventions for prevention, treatment, rehabilitation, and diagnosis. It has an Impact Factor of 5.653 for the 4600 systematic reviews that it publishes on the Cochrane Library website (http://www.thecochranelibrary.com/view/0/index.html).

## Evidence-Based Neuro-Oncology

Cochrane organises their reviews through Collaborative Review Groups (CRGs). For the last 10 years, Neuro-Oncology reviews have been produced with the support of the Cochrane Gynaecological Cancer CRG, who also support "orphan reviews" from smaller cancer topics. Other CRGs have also published reviews relevant to neuro-oncology. These include the Cochrane Pain, Palliative and Supportive Care Group (PaPaS), Cochrane Epilepsy Group, Depression, Anxiety and Neurosis Group, Neuromuscular Disease Group, and several others.

The neuro-oncology titles found on the Cochrane Library (Figure 1) stand at 36 completed reviews, protocols, or titles (Table 1) from 14 countries across the world (Figure 2). With the introduction of carmustine-impregnated wafers and temozolomide, the Cochrane Library has provided critical appraisal of both these therapies. Interest in established surgical treatments has been generated with findings highlighting the current level of evidence for surgical resection in high-grade glioma and single brain metastasis. From a symptomatic viewpoint, evidence for prevention of seizures and treatment of epilepsy and depression have been performed and highlight the lack of high-quality evidence on which to base advice.

Many areas in neuro-oncology have still to be subjected to appraisal using Cochrane methodology. There are no reviews on the rare tumour types such as primary CNS lymphoma, pineal region tumours, optic nerve glioma, medulloblastoma, or many of the childhood brain tumours. There are not yet re-

**Figure 1**. Cochrane Neuro-Oncology Editorial Group.
From left to right: David Tovey, Editor in Chief, Cochrane Editorial Unit, London; Clare Jess, Joint Managing Editor, Cochrane Gynaecological and Orphan Cancer Review Group, Bath; Robin Grant, neurologist, Edinburgh, Editor Neuro-Oncology Webpage; Gail Quinn, Joint Managing Editor, Cochrane Gynaecological and Orphan Cancer Review Group, Bath; Mike Hart, neurosurgeon, Cambridge, Editor Neuro-Oncology Webpage.

Received on February 10, 2012; accepted on March 26, 2012;
Pre-Publishing Online on May 16, 2012
From the [1]Edinburgh Centre for Neuro-Oncology, Western General Hospital, Edinburgh; [2]Department of Neurosurgery, Addenbrooke's Hospital, Cambridge; [3]Cochrane Gynaecological and Orphan Cancer Review Group, Wolfson Centre, Royal United Hospital, Bath, UK
**Correspondence to:** Robin Grant, MD, Edinburgh Centre for Neuro-Oncology, Western General Hospital, Crewe Road, Edinburgh, Scotland EH4 2XU, United Kingdom; e-mail: robin.grant@luht.scot.nhs.uk

**Table 1.** Current reviews in neuro-oncology.

| Category | Title | CD and author's origin |
|---|---|---|
| Primary brain tumours | Biopsy versus resection for high-grade glioma | CD002034 |
| | Chemotherapeutic wafers for high-grade glioma | CD007294 |
| | Chemotherapy for high-grade glioma | CD003913 |
| | Temozolomide for high-grade glioma | CD007415 |
| | Anti-angiogenic therapy for high-grade glioma | CB008218 |
| Brain metastases | Surgical resection and whole-brain radiation therapy versus whole-brain radiation therapy alone for single-brain metastases | CD003292 |
| | Whole-brain radiation therapy (WBRT) alone versus WBRT and radiosurgery for the treatment of brain metastases | CD006121 |
| | Whole-brain radiotherapy for the treatment of multiple brain metastases | CD003869 |
| | Cranial irradiation for preventing brain metastases of small-cell lung cancer in patients in complete remission | CD002805 |
| | Surgery versus radiosurgery for patients with a solitary brain metastasis from non-small-cell lungcancer | CD004840 |
| | Chemotherapy for brain metastases from small-cell lung cancer | CD007464 |
| Other CNS tumours | High-dose chemotherapy and autologous haematopoietic stem cell rescue for children with high-risk neuroblastoma | CD006301 |
| Spinal cord compression | Interventions for the treatment of metastatic extradural spinal cord compression in adults | CD006716 |
| | Patient positioning and braces for pain relief and spinal stability in metastatic cord compression in adults | CD007609 |
| Supportive & psychological care | Antiepileptic drugs for preventing seizures in people with brain tumours | CD004424 |
| | Antiepileptic drugs for treating seizures in adults with brain tumours | CD008586 Edinburgh |
| | Pharmacological treatment of depression in patients with a primary brain tumour | CD006932 Edinburgh |
| | Psychotherapy for depression among incurable cancer patients | CD005537 Nagoya |
| | Drug therapy for the management of cancer-related fatigue | CD006704 London |
| | Psychosocial interventions for reducing fatigue during cancer treatment in adults | CD006953 Nijmegen |
| | Gabapentin for chronic neuropathic pain | – |
| | Drug therapy for anxiety in adult palliative-care patients | CD004596 Oregon |
| | Interventions before consultations for helping patients address their information needs | CD004565 Cardiff |
| | Educational interventions for the management of cancer-related fatigue in adults | CD008144 Brisbane |
| | Home-based palliative care for adults with cancer | CD006510 |
| | Multidimensional rehabilitation programmes for adult cancer survivors | CD007730 Belfast |
| | Telephone interventions for symptom management in adults with cancer | CD007568 London |
| | Exercise interventions on health-related quality of life for cancer survivors | CD007566 Baltimore |
| | Psychosocial interventions to improve quality of life and emotional well-being for recently diagnosed cancer patients | CD007064 Belfast |
| | Exercise interventions on health-related quality of life during active treatment | CD008465 Baltimore |
| | Drugs for the treatment of fatigue in palliative care | CD006788 Bonn |
| Treatment-related effects of cancer | Interventions for preventing neuropathy caused by cisplatin and related compounds | CD005228 Ann Arbor |
| | Hyperbaric oxygen therapy for late radiation tissue injury | CD005005 New South Wales |
| Paraneoplastic syndromes | Treatment for Lambert-Eaton myasthenic syndrome | CD003279 Newcastle |

views on the benign intracranial tumours, eg, pituitary tumours, meningiomas, or vestibular schwannomas, despite purported improvements in treatment. There are a few reviews on spinal metastasis, epidural spinal cord compression, and peripheral nerve toxicity with chemotherapy.

## The Webpage

With the help of the Cochrane Editorial Unit and the Cochrane Gynaecological Cancer CRG, we have established a Cochrane Neuro-Oncology Webpage (http://www.cochrane-gyncan.org/neuro-oncology). Development of this neuro-oncology webpage has been necessitated by the improving quality of research in evidence-based neuro-oncology and plethora of new reviews. It is aimed at providing a focal point within the Cochrane website to provide a coherent network to locate reviews: this also has the benefit of highlighting what reviews have not been undertaken and what areas would benefit from a Cochrane systematic review. Links are also provided to Cochrane resources to educate and assist new authors. We intend to provide links to the 3 world-wide neuro-oncology associations (European Association of Neuro-Oncology [EANO], Society for Neuro Oncology [SNO], and Asian Society for Neuro-Oncology [ASNO]) and any individual national neuro-oncology associations, who may wish links to identify Cochrane Reviews or who wish to identify areas where reviews are still required.

## Writing a Review

If you are interested in performing a review, the first stage is to read more about the Cochrane Collaboration from the hyperlinked webpages, and contact the Managing Editor to register interest in the proposed title for the review (gail.quinn@ruh-bath.swest.nhs.uk or clare.jess@ruhbath.swest.nhs.uk). Each systematic review addresses a clearly formulated question; for example: "Can monoclonal antibodies improve survival in glioblastoma multiforme?" All the existing primary research on a topic that meets certain criteria is searched for and collated, and then assessed using stringent guidelines, to establish whether or not there is conclusive evidence about a specific treatment. The reviews are updated regularly, ensuring that treatment decisions can be based on the most up-to-date and reliable evidence. There are several steps to doing a review and support is available at all stages (Figure 3).

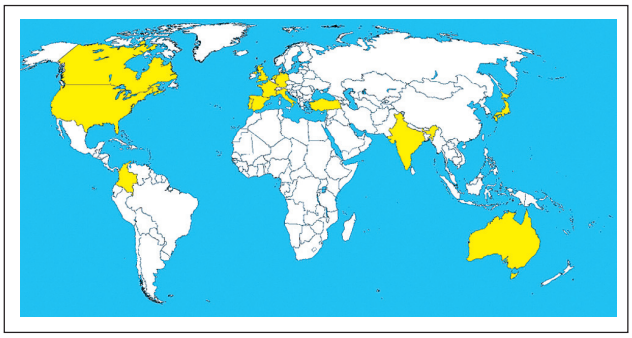

**Figure 2.** Worldwide neuro-oncology authors. Map showing geographic locations of authors of Neuro-Oncology Reviews.

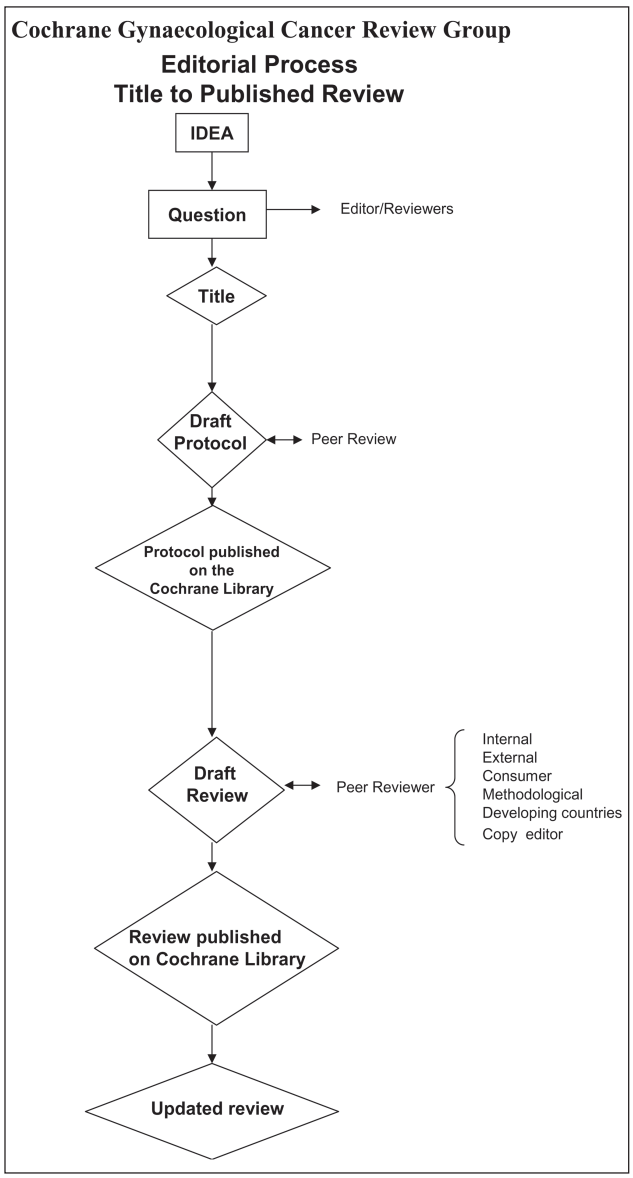


**Figure 3.** Flow diagram of writing a Cochrane review.

All potential authors of Cochrane systematic reviews have access to training and support resources from the Cochrane Collaboration. Complete information about training is provided on the dedicated Cochrane Training website (http://www.cochrane.org/training). The Cochrane Collaboration has centres in every continent and many European countries including UK, Netherlands/Belgium, France, Finland, Norway, Switzerland, Germany, Austria, Italy, and Croatia. There is very frequently a centre in an author's country of origin, with which relationships for generic education and advice can be sought. Important resources required are noted below:

- The Cochrane Handbook for Systematic Reviews of Interventions is the official handbook and describes in detail the process of preparing and maintaining Cochrane reviews of the effects of interventions (http://www.cochrane.org/training/cochrane-handbook).
- RevMan is the downloadable software used to prepare and maintain Cochrane reviews and find documentation and support (http://ims.cochrane.org/revman).

- Diagnostic reviews of accuracy of a test have dedicated resources and support.
- Training can be in person via a range of face-to-face workshops around the world, at our annual Cochrane Colloquium which incorporates a varied programme of training workshops as part of the conference schedule, or online in a series of interactive online learning modules (http://www.cochrane.org/tags/news-events/cochrane-collaboration-calendar).
- Literature searching: the Cochrane Central Register of Controlled Trials (CENTRAL) is a database of over 600,000 records of randomised trials that is a recommended source for all authors, available through The Cochrane Library (http://www.cochrane.org/cochrane-reviews/about-cochrane-library). Searches are also run on MEDLINE and EMBASE as part of the support offered by the editorial base.
- Evaluating the evidence: while the Cochrane Style Resource can compare your review against the official style guide, GRADEpro is a downloadable additional software resource used to create "Summary of Findings" tables for Cochrane reviews, and find documentation and support. PRISMA (formerly QUOROM) gives good reporting guidelines for systematic reviews (http://www.cochrane.org/about-us/evidence-based-health-care/webliography/books/reporting).
- Collaborating online and cross-cultural communication guides are available to allow review teams to collaborate remotely and work internationally and across cultures.
- Cochrane have a strict policy on commercial sponsorship as it must protect the integrity of reviews and review authors.
- The Cochrane collaboration have guidance on co-publication and dissemination of your review that is readily available through the website http://www.cochrane.org/policy-manual/225-publication-versions-cochrane-reviews-print-journals.

Publishing a Neuro-Oncology Cochrane Review can be a lot of work, but, along the way, you will become much more knowledgeable about interpreting the results of trials and understanding evidence-based practice, as well as providing a high-quality review which will be read by policymakers, colleagues, and patients around the world. The future of neuro-oncology is likely to involve the development of individualised therapy and the use of more sophisticated operative techniques; translating these advances into improved clinical outcomes, including greater emphasis on quality of life, will require building on the foundation of the reviews in this collection. There will be a meeting of the Cochrane Neuro-Oncology Interest Group at the 10th EANO Meeting on Friday, September 7, from 11:00–13:00. We hope that you are interested in the possibility of producing Cochrane Reviews or helping with the review process and would be delighted to see you there. Mike Hart will discuss the existing neuro-oncology reviews and the review process while Gail Quinn will describe the training and help available through the Cochrane Gynaecological and Orphan Cancer Review Group. We will look for ideas of areas requiring an evidence-based review. Robin Grant will chair. We look forward to a fruitful collaboration. Those interested in attending the meeting, please contact Robin.Grant@luht.scot.nhs.uk

## Conflict of Interest

The authors state that no conflicts of interest exist.

## Acknowledgements

We would like to acknowledge the help of David Tovey, Editor in Chief of the Cochrane editorial unit, London, Clare Jess, Managing Editor, Cochrane Gynaecological and Orphan Cancer Review Group, Bath, and Tracey Bishop, Assistant Managing Editor, Cochrane Gynaecological and Orphan Cancer Review Group, Bath, for their assistance in developing the Neuro-Oncology Cochrane Webpage.