The Educational strategy

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Chair of Physical and Rehabilitation Medicine
Medical University of Plovdiv, Bulgaria

Co-chair of Cochrane Rehabilitation Education Committee

*Chair of Education Committee
University of Malaya

Trusted evidence.
Informed decisions.
Better health.
The idea behind weighting of evidence...

Resources will always be limited: they should be used to provide health care which has been shown in properly designed evaluations to be effective (Cochrane, 1972)

“Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values”

- David Sackett

Cochrane is the actual gold standard for a good EBM approach
Mission

Allow all rehabilitation professionals to combine the best available evidence as gathered by high quality Cochrane systematic reviews, with their own clinical expertise and the values of patients.

Improve the methods for evidence synthesis, to make them coherent with the needs of disabled people and daily clinical practice.
**Six Goals**

- To connect stakeholders creating a global network
- To undertake knowledge translation for Cochrane on reviews relevant for rehabilitation
- Develop a register of systematic reviews relevant to rehabilitation

- To provide education and training
- To review and strengthen methodology
- To promote and advocate for EBCP in rehabilitation
Education Committee

Goal 4. To promote Evidence Based Clinical Practice and provide education and training on it and on systematic review methods to stakeholders

Chair: Julia Patrick Engkasan, Malaysia

Co-Chair: Elena Ileva, Bulgaria
Planned actions - ABP

- The Education Committee will publish articles on development and application of evidence in rehabilitation, tailoring this information for a rehabilitation audience.

- will run training session on undertaking Cochrane reviews for rehabilitation stakeholders, and will provide support for people working on Cochrane reviews on rehabilitation topics.

- will run training for rehabilitation stakeholders (including healthcare practitioners, healthcare managers, policy makers etc.) on critical appraisal of evidence and application of it to clinical practice

- will develop a repository for sharing training material related to EBCP in rehabilitation.

- will explore ideas and opportunities to provide education and training to low to middle income countries.
Workshops

1. General introduction: what is Cochrane and Cochrane Rehabilitation
   - ECPRM Estoril, 2016;
   - ISPRM Congress, Berlin, 2015

2. Cochrane Rehabilitation results

3. Other EBM workshops

Courses on EBM and Cochrane reviews

1. Core EBM courses

2. Rehabilitation Cochrane Review courses on conducting Cochrane reviews and clinical use of Cochrane reviews.
   - during PRM congresses/ online/ summer schools in collaboration with a specific university or society (e.g. ESPRM/ISPRM) - European School Marseille, Mediterranean School, Syracuse.

3. Introduction of EBM courses in the curriculum of the health professionals in rehabilitation /European Board of PRM/
Workshops & educational sessions

03/2017 – Frankfurt – Reha-Kolloquium 2017
05/2017 – Buenos Aires – International Society of PRM
09/2017 – Cape Town – Global Evidence Summit
11/2017 – Malta – Mediterranean Forum of PRM
11/2017 – Maastricht – Baltic North Sea Forum of PRM
02/2018 – Atlanta – American Academy Physiatry
04/2018 – Vilnius – European Society of PRM
07/2018 – Paris – International Society of PRM
09/2018 – Cochrane Colloquium Edinburgh – 2 workshops submitted
Cochrane Rehabilitation Workshop
5th of May
08:30-10:00 ETA HALL. Cochrane Rehabilitation
Systematic reviews: writing, reading, applying.

Chairpersons: Stefano NEGRINI, Carlotte KIEKENS, Elena ILIEVA

1. Elena ILIEVA, Carlotte KIEKENS Introduction
2. Antii MALMIVAARA  How to conduct and assess systematic reviews
3. Frane GRUBIŠIĆ  How to read a systematic review
4. Stefano NEGRINI  Example of a Systematic Review and its application to practice
5. Francesca GIMIGLIANO  Knowledge Translation for dissemination of systematic reviews
### Making sense of rehabilitation trials: a critical appraisal workshop for healthcare professionals - Sunday, July 8th, 14:00 - 18:00, 253; Chair – Julia Patrick Engkasan, William Levack

<table>
<thead>
<tr>
<th>Duration (mins)</th>
<th>Activity / title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>10</td>
<td>Lecture: Workshop overview &amp; Introduction to EBM</td>
<td>Julia Patrick Engkasan</td>
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<tr>
<td>20</td>
<td>Lecture: <em>Introduction to formulating clinical questions &amp; how to link these to database searches</em></td>
<td>Julia Patrick Engkasan</td>
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<tr>
<td>20</td>
<td>Small group work: Formulating Clinical questions</td>
<td>All facilitators/speakers</td>
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<tr>
<td>40</td>
<td>Lecture: <em>Critical appraisal of RCT study</em></td>
<td>Jean-Phillipe Regnaux</td>
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<tr>
<td>20</td>
<td>Small group work: Appraisal of RCT article</td>
<td>All speakers/facilitators</td>
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<td>10</td>
<td>Q&amp;A with whole group re content for the morning</td>
<td>All speakers/facilitators</td>
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<tr>
<td>10</td>
<td>Coffee break</td>
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<tr>
<td>30</td>
<td>Critical appraisal of a systematic review</td>
<td>Antti Malmivaara</td>
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<tr>
<td>30</td>
<td>Small group work: Appraisal of systematic review article</td>
<td>All speakers/facilitators</td>
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<tr>
<td>30</td>
<td><strong>Making sense of study results; what they mean in clinical practice</strong> (p-values, 95%Cis, MD, SMD, RR etc)</td>
<td>William Levack</td>
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<tr>
<td>20</td>
<td>Applying evidence in your practice</td>
<td>Jure Aljinović</td>
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<tr>
<td>10</td>
<td>QA with whole group and wrap up</td>
<td>William Levack</td>
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Skills to execute each step of EBM

• Ask answerable clinical question
• Search the evidence
• Appraise the evidence
• Apply the evidence
Formulate an answerable clinical question

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<tbody>
<tr>
<td>Population</td>
<td>Intervention Or Exposure</td>
<td>Comparison</td>
<td>Outcome</td>
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<tr>
<td>Who are the patients?</td>
<td>What do we do to them?</td>
<td>What do we compare the intervention with?</td>
<td>What happens?</td>
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<tr>
<td>What is the problem?</td>
<td>What are they exposed to?</td>
<td></td>
<td>What is the outcome?</td>
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The focus question will Help you in your search strategy
2. Search for evidence
3. Appraise the evidence
Critical appraisal sheets

This section contains useful tools and downloads for the critical appraisal of different types of medical evidence. Example appraisal sheets are provided together with several helpful examples.

Critical Appraisal Worksheets

English

- Systematic Reviews Critical Appraisal Sheet
- Diagnostics Critical Appraisal Sheet
- Prognosis Critical Appraisal Sheet
- Randomised Controlled Trials (RCT) Critical Appraisal Sheet

Chinese – Translated by Chung-Han Yang and Shih-Chieh Shao

- Systematic Reviews Critical Appraisal Sheet
- Diagnostic Study Critical Appraisal Sheet
- Prognostic Studies Critical Appraisal Sheet
- RCT Critical Appraisal Sheet
# Systematic Review: Are the results of the review valid?

<table>
<thead>
<tr>
<th>What question (PICO) did the systematic review address?</th>
<th>Where do I find the information?</th>
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<tbody>
<tr>
<td>The main question being addressed should be clearly stated. The exposure, such as a therapy or diagnostic test, and the outcome(s) of interest will often be expressed in terms of a simple relationship.</td>
<td>The Title, Abstract or final paragraph of the <strong>Introduction</strong> should clearly state the question. If you still cannot ascertain what the focused question is after reading these sections, search for another paper.</td>
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<tr>
<th>This paper: Yes [ ] No [ ] Unclear [ ]</th>
<th>Comment:</th>
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<tr>
<th>F - Is it unlikely that important, relevant studies were missed?</th>
<th>Where do I find the information?</th>
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<tr>
<td>The starting point for comprehensive search for all relevant studies is the major bibliographic databases (e.g., Medline, Cochrane, EMBASE, etc) but should also include a search of reference lists from relevant studies, and contact with experts, particularly to inquire about unpublished studies. The search process should not be limited to English language only. The search strategy should include both MESH terms and text words.</td>
<td>The <strong>Methods</strong> section should describe the search strategy, including the terms used, in some detail. The <strong>Results</strong> section will outline the number of titles and abstracts reviewed, the number of full-text studies retrieved, and the number of studies excluded together with the reasons for exclusion. This information may be presented in a figure or flow chart.</td>
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<th>This paper: Yes [ ] No [ ] Unclear [ ]</th>
<th>Comment:</th>
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<tr>
<th>A - Were the criteria used to select articles for inclusion appropriate?</th>
<th>Where do I find the information?</th>
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<tr>
<td>The inclusion or exclusion of studies in a systematic review should be clearly defined a priori. The eligibility criteria used should specify the patients, interventions or exposures and outcomes of interest. In many cases the type of study design used, whether randomized trials, or observational studies, should also be specified. If the study design is not specified, then a search for another paper may be necessary.</td>
<td>The <strong>Methods</strong> section should describe in detail the inclusion and exclusion criteria. Normally, this will include the study design.</td>
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<th>This paper: Yes [ ] No [ ] Unclear [ ]</th>
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**THERAPY STUDY: Are the results**

What question did the study address?

- **Patients**
- **Intervention**
- **Comparison**
- **Outcome(s)**

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1a. R - Was the assignment of patients random?

- **What is best?**
  - Centralised computer randomisation is used and often used in multi-centred trials. Trials may use an independent person to “police” the randomisation.

- **This paper:** Yes [ ] No [ ] Unclear [ ]

1b. R - Were the groups similar?

- **What is best?**
  - If the randomisation process worked (achieved comparable groups) the groups should be similar. The more similar the better it is. There should be some indication of whether differences between groups are statistically significant (i.e., p values).

- **This paper:** Yes [ ] No [ ] Unclear [ ]

2a. A - Aside from the allocated treatment, what is best?

- Apart from the intervention the patients in the control group should remain as similar as possible. Look in the **Methods** section for the follow-up.
Integrate clinical expertise & patient values

Introduce EBM in practice

Implementation of EBM in PRM

When evidence is known, a knowledge translation effort is required

CR is the knowledge translation organization for PRM
**KT framework and implementation plan**

**KT Advisory Board (Stefano Negrini)**

**Working Packages**
- Embed Prioritization (Stefano Negrini)
- Translate (Francesca Gimigliano)
- Grow capacity in our users (Julia Patrick Engkasan)
- Formalize strategic partnerships (Carlotte Kiekens)
- Build KT infrastructure and KT capacity in Cochrane (Stefano Negrini)
- Evaluate KT Framework (Tracey Hawes)
<table>
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<tr>
<th>Facilitating pull</th>
<th>KT Theme</th>
<th>Work Package Area</th>
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<tbody>
<tr>
<td>Continuous evolve the Cochrane Library so it makes Cochrane reviews easy to find in appropriate formats and languages</td>
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<td>Grow capacity in our users through development and delivery of training in using Cochrane evidence and (in relation to theme five) in understanding the concept and importance of evidence in decision-making</td>
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<tr>
<td>Scale up mechanisms for engaging with, and responding to key user groups and meeting their evidence needs</td>
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Call for Education Committee Contributors

Dear Cochrane Rehabilitation Community Member,

Cochrane Rehabilitation has initiated collection of EBM resources for its members. We aim to compile resources like Evidence Based websites related to rehabilitation (for example SCIRE), details of upcoming EBM workshop (online and on-site) and articles related to practice of EBM in rehabilitation.

We would like to invite you to contribute to this effort by providing us the websites addresses and links to the appropriate resources as well as to the relevant articles. We will upload these resources in Cochrane Rehabilitation, which will be of great value to our rehabilitation community.

If you are interested in collaborating in this task, please contact us via e-mail (cochrane.rehabilitation@gmail.com) sending your CV and resources you have. We will acknowledge your contribution accordingly.

Get involved

We are currently looking for:
- Education Committee Members
- Authors of Cochrane Review Summaries
- Translators
- Review Taggers
- Bloggers
Announcement to invite collaborators

Collection of EBM resources like Evidence Based websites related to rehabilitation (SCIRE),
Details of upcoming EBM workshops (online and onsite)
Articles related to practice of EBM in rehabilitation

<table>
<thead>
<tr>
<th>Websites</th>
<th>Reading List</th>
<th>Courses and workshops</th>
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<tbody>
<tr>
<td>(List of websites specific to rehabilitation)</td>
<td>- Articles</td>
<td>- Online Courses</td>
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<tr>
<td></td>
<td>- Books</td>
<td>- Workshops</td>
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<tr>
<td>PROVIDER</td>
<td>COURSE</td>
<td>URL</td>
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<td></td>
<td>Understanding Evidence-based Healthcare: A Foundation for Action -- Course for Physicians</td>
<td><a href="https://courseplus.jhu.edu/core/ex.cfm/go/course.home/cid/1740/">https://courseplus.jhu.edu/core/ex.cfm/go/course.home/cid/1740/</a></td>
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<tr>
<td>WHO</td>
<td>eLearning Resources: Basic course on Evidence Based Medicine (EBM)</td>
<td><a href="https://extranet.who.int/elearn/login/index.php">https://extranet.who.int/elearn/login/index.php</a></td>
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Cochrane Rehabilitation


About us  Evidence  Resources  News & Events  Get Involved  Contact us

Cochrane News

- An international network for public involvement and engagement in health and social care research
- Cochrane Epilepsy and Cochrane Movement Disorders seeks Research Assistant - Liverpool, UK
- International Women’s Day: Cochrane Indonesia’s Director reflects on her continued contributions to maternal and perinatal health and the work of Cochrane
- CIS Support Team Member - flexible location
- Cochrane seeks Team Administrator - London, UK

Latest News and Events

Like After Stroke: a round up of Cochrane evidence

Keep Posted

Weekly evidence in Rehab

News
Weekly evidence in Rehabilitation

Tweets by @CochraneRehab
**Blogshots**

**Cochrane Rehabilitation**

**Yoga for stroke rehabilitation**

We are uncertain whether yoga improves quality of life, balance, gait, depression, anxiety and disability in stroke survivors. Whether or not yoga has any adverse effects is also uncertain.

Cochrane Review: two studies with 72 people comparing yoga vs waiting-list control in adults with stroke.

Cochrane Review by: Cochrane Stroke Group

**Vocational rehabilitation for enhancing return-to-work in workers with traumatic upper limb injuries**

We are uncertain whether vocational rehabilitation improves workers’ ability to return to work after traumatic upper limb injuries. Effects on functional status and quality of life are also uncertain. **EVIDENCE GAP.**

Cochrane Review: no eligible studies found.

Cochrane Review by: Cochrane Work Group

**Fitness training for cardiorespiratory conditioning after traumatic brain injury**

Cardiorespiratory exercise programmes may improve cardiorespiratory fitness in people after traumatic brain injury. It is uncertain whether they improve depression, cognition or fatigue or whether there are any adverse effects.

Cochrane Review: 8 studies with 399 people with traumatic brain injury of any age or severity, comparing cardiorespiratory exercise prescribed alone vs usual care, a non-exercise intervention or no intervention.

Cochrane Review by: Cochrane Injuries

**Treatment of fatigue in amyotrophic lateral sclerosis/motor neuron disease**

It is uncertain whether modafinil, breathing exercises, exercises with weights, or magnetic brain stimulation are safe and effective at improving fatigue in people with amyotrophic lateral sclerosis (also known as motor neuron disease). **EVIDENCE GAP.**

Cochrane Review: 4 studies with 88 people with amyotrophic lateral sclerosis, comparing pharmacological and non-pharmacological treatments vs placebo.

Cochrane Review by: Cochrane Neuromuscular
Students For Best Evidence – S4BE in Rehabilitation

Is Acupuncture an effective treatment for chronic low back pain?

This blog is a critical appraisal of a randomized control trial (RCT) looking at the effectiveness of acupuncture for low back pain.

Blinding: taking a better look at the blind side

Blinding is a common element used in rigorously designed trials. Most people are familiar with the general concept but what is its purpose and what is the best way to perform it? This blog by Neelam Khan explores both of these questions and discusses ways to tackle situations where blinding cannot be done.

Comparison of general exercise, motor control exercise and spinal manipulative therapy for chronic low back pain

This blog is a critical appraisal of a Randomized Controlled Trial (RCT) comparing the effects of general exercise, motor control exercise and spinal manipulative therapy on function and perceived effect of intervention in patients with chronic back pain.
A Survey on EBM in Rehabilitation

Online survey

Julia Patrick Engkhasan
Objectives

- Describe the training experience
- Describe self perceived understanding & competency related to EBM
- Describe top 5 barriers
- The influence of profession, gender, experience on level of understanding
EBM Educational Needs Among Rehabilitation Practitioners

Demographic Profile

Age

EBM Experiences & Understanding

Gen

Have you ever a

Barriers to practicing EBM (tick top 5 barriers only)

Prof

If yes, please de

Rate your under

☐ No internet access
☐ No time
☐ Unable to apply study results to practice
☐ Unable to interpret clinical studies
☐ No access to full text journals
☐ Not familiar with evidence based medicine
☐ Lack of interest
☐ English proficiency
Participants -

**BY COUNTRY**
- Thailand: 49%
- Malaysia: 30%
- Unspecified: 21%

**By Profession**
- Doctor: 51%
- PT: 22%
- OT: 14%
- ST: 6%
- Nurse: 3%
- Others: 3%
- Unspecified: 1%

**Years of experience**
- Unspecified
- >30 years
- 21-30 years
- 11-20 years
- <10 years

**Profession: Medical Doctor**
- Specialist: 41%
- Non-specialist: 59%
There is a need for EBM training and education
Cochrane Rehabilitation e-book

“Live” e-book available for free in Internet to be constantly updated

• In collaboration with and funded by the European PRM Bodies

Titles, abstracts and plain language summaries for:

• clinicians

• PRM trainees, undergraduate medical students, rehabilitation professionals student

• policymakers, patients’ associations and other stakeholders

Identify unmet needs of evidence synthesis and activate correct prioritization for future work of Cochrane
Educational Summary

Target audience:

• Medical or other health professional students

Guideline on the content: The statement should be very simple and easy to understand; basic concepts should be reinforced.

• Description of the disease/syndrome (what is the problem?)
• What is the investigated treatment?
• Brief summary of the results as described in the plain language summary
• Comment on how and if the evidence could change in the future (the quality of evidence says that…)
Exercise therapy useful against hand osteoarthritis

Hand osteoarthritis (OA) is the most common form of arthritis characterized by progressive joint deterioration, resulting in joint swelling, inflammation, bony enlargement and bone erosion. This condition mainly affects older women that complain for hand pain, finger joint stiffness and reduced grip strength, which may result in activity limitations and participation restrictions. There are several symptomatic treatment options for hand OA, aiming to reduce pain and functional disability available. In particular, among non-pharmacological approaches, exercise might be effective and safe for all people with hand OA, in terms of pain relief, improvement of handgrip and pinch strength, hand joint mobility and stability, and overall health, as well as reduction of the use of drugs. This CSR assesses the benefits and harms of exercise compared with no treatment in people with hand OA.

Immediately after treatment, people who completed the exercise programme reported absolute changes of hand pain (-5%), finger joint stiffness (-7%), hand function (+6%), quality of life (+0.3%) compared with people who did not perform exercise. No significant increased number of people experienced adverse events such as increased pain and/or joint swelling. Further studies, in the future, might change the above findings.
Thank you!

Receive Weekly Evidence in Rehabilitation
http://rehabilitation.cochrane.org
cochrane.rehabilitation@gmail.com
@CochraneRehab