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CARE FIELD

Newsletter with PEARLS December 2014

The Cochrane PHC team wishes you happy holidays and our best wishes for the New Year

This month's PEARLS:

No. 441 Fourteen days is ideal treatment duration for Helicobacter pylori eradication
No. 442 Decision aids helpful for treatment or screening decisions
No. 443 Vitamin D supplementation may reduce mortality in elderly adults
No. 444 Water-based exercise training beneficial in chronic obstructive pulmonary disease
No. 445 Electromagnetic field treatment effective for osteoarthritis pain
No. 446 Self-management effective for chronic obstructive pulmonary disease

Events

Workshop: Beginning a Systematic Review Protocol - Oxford, UK
This workshop targeted at authors who are at the very beginning of the review process and includes small group discussions around each authors review question. This workshop also incorporates an introduction to RevMan, and the appropriate procedures for working on a protocol using RevMan.
Date: 27 January 2014
Location: Oxford, UK
more information: http://ukcc.cochrane.org/workshop-ra1-beginning-systema...

The Nottingham Systematic Review Course - Nottingham, UK
Who should attend: all people wishing to undertake reviews of randomised studies. After attending the course, participants should be able to understand search strategies, extract data, manage the results of systematic searches, understand the syntheses of the data, apply the methods and conduct reviews independently.
Date: Tuesday 16th June – Friday 19th June, 2015
Location: Nottingham, UK
More information: Email: jacqueline.patrick@nottingham.ac.uk
or visit https://szg.cochrane.org/workshops-training-and-events to download an application form.

Interesting new and updated reviews

The following recently published Cochrane reviews have been selected for your interest.

Interventions aimed at communities to inform and/or educate about early childhood vaccination

[Different durations of corticosteroid therapy for exacerbations of chronic obstructive pulmonary disease]
[Preventing occupational stress in healthcare workers]

P.E.A.R.L.S.

practical evidence about real life situations

The New Zealand Guideline Group fund the Cochrane Primary Care Field to produce the P.E.A.R.L.S. (click here for the websitelink)

Access http://www.cochraneprimarycare.org/ to view the PEARLS online.

PEARLS
PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are funded by the New Zealand Guidelines Group.
PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

Fourteen days is ideal treatment duration for Helicobacter pylori eradication

Clinical question	What is the optimal duration of treatment for eradicating *Helicobacter pylori* infection?
Bottom line	For proton pump inhibitor (PPI)+clarithromycin+amoxicillin (PCA), prolonging treatment duration from 7 to 10 days, or from 10 to 14 days, is associated with a significantly higher eradication rate. The optimal duration of therapy for PCA and PPI+amoxicillin+nitroimidazole (PAN) is at least 14 days. More data are needed to confirm if there is any benefit of increasing the duration of therapy for PPI+clarithromycin+nitroimidazole (PCN) therapy.
Caveat	Overall, the quality of evidence for the outcome of *H. pylori* persistence for PPI triple therapy was moderate because of study limitations (risk of bias). For certain subgroups, the quality of the evidence for the outcome *H. pylori* persistence was low (eg, PCN 14 days versus 7 days) or very low (eg, PCN 10 days versus 7 days) because of study limitations.
Context	A PPI plus 2 antibiotics is the most commonly used first treatment to eradicate *H. pylori* infection. The ideal duration of therapy for *H. pylori* eradication is controversial, with recommendations ranging from 7 to 14 days.
Cochrane Systematic Review	Yuan Y et al. Optimum duration of regimens for *Helicobacter pylori* eradication. Cochrane Reviews, 2013, Issue 12. Current Art. No.: CD008337.DOI: 10.1002/14651858. CD008337.pub2. This review contains 75 studies involving 19,415 participants.
Pearls No. 441, August 2014, written by Brian R McAvoy	

Decision aids helpful for treatment or screening decisions

Clinical question	How effective are decision aids for people facing treatment or screening decisions?
Bottom line	When patients used decision aids, they improved their knowledge of the options, felt more informed and more clear about what mattered most to them (both with high-quality evidence), had more

	accurate expectations of the possible benefits and harms of their options, and participated more in decision making (both with moderate-quality evidence). Patients who used decision aids that included an exercise to help them clarify what mattered most to them were more likely to reach decisions consistent with their values. Decision aids improved communication between patients and their health practitioner, and had a variable effect on consultation length. They reduced the number of patients choosing prostate-specific antigen testing and discretionary surgery, and had no apparent adverse effects on health outcomes or satisfaction.
Caveat	This systematic review was limited by inadequate power to detect important differences in effectiveness in subgroups and in the wide variability in the decision contexts, the elements within the patient decision aid, the type of comparison interventions, the targeted outcomes and the evaluation procedures. Several of the outcomes demonstrated statistically significant heterogeneity.
Context	Decision aids can be used when there is more than one reasonable option, when no option has a clear advantage in terms of health outcomes and when each option has benefits and harms that patients may value differently. Decision aids may be pamphlets, videos or web-based tools. They make the decision explicit, describe the options available and help people to understand these options, as well as their possible benefits and harms.
Cochrane Systematic Review	Stacey D et al. Decision aids for people facing health treatment or screening decisions. Cochrane Reviews, 2014, Issue 1. Art. No.: CD011431.DOI: 10.1002/14651858. CD011431.pub4. This review contains 115 studies involving 34,444 participants.
Pearls No. 442, August 2014, written by Brian R McAvoy	

Vitamin D supplementation may reduce mortality in elderly adults

Clinical question	Does vitamin D supplementation reduce mortality in healthy adults and adults in a stable phase of disease?
Bottom line	There was some evidence that vitamin D3 (cholecalciferol) may decrease all-cause mortality and cancer mortality in predominantly elderly participants living independently or in institutional care (NNT* 150). Vitamin D3 combined with calcium increased nephrolithiasis. Vitamin D2 (ergocalciferol), alfacalcidol and calcitriol had no statistically significant effect on mortality. Alfacalcidol and calcitriol increased hypercalcaemia. Elevated urinary calcium excretion, renal insufficiency, cancer and cardiovascular disorders, gastrointestinal disorders, psychiatric or skin disorders were not statistically significantly influenced by vitamin D supplementation. All trials were conducted in high-income countries. The age of participants ranged from 18 to 107 years. The mean proportion of women was 77%. Vitamin D was administered for an average of 4.4 years. *NNT = number needed to treat to benefit 1 individual.
Caveat	A major drawback in most of the included trials was the relatively large proportion (>8%) of participants who dropped out. There was a lack of information on the effect in men and in younger persons of both sexes. Due to the risk of attrition bias, outcome reporting bias and other biases, it is not yet possible to recommend or refute the use of vitamin D for reducing all-cause mortality or cancer mortality.
Context	Numerous observational studies suggest that optimal vitamin D status may be associated with fewer occurrences of cancer and

	cardiovascular disease (such as heart attack or stroke). Vitamin D is synthesised in the skin as vitamin D3 (cholecalciferol) or is obtained from dietary sources or supplements as vitamin D3 or vitamin D2 (ergocalciferol).
Cochrane Systematic Review	Bjelakovic G et al. Vitamin D supplementation for prevention of mortality in adults. Cochrane Reviews, 2014, Issue 1. Art. No.: CD007470.DOI: 10.1002/14651858. CD007470.pub3. This review contains 56 studies involving 95,286 participants.
Pearls No. 443, September 2014, written by Brian R McAvoy	

Water-based exercise training beneficial in chronic obstructive pulmonary disease

Clinical question	How effective is water-based exercise training (WBET) in people with chronic obstructive pulmonary disease (COPD)?
Bottom line	WBET resulted in significant improvement in functional exercise capacity, peak exercise capacity, endurance exercise capacity and health-related quality of life when compared with no exercise. When compared with land-based exercise training (LBET), WBET elicited significantly greater improvement in endurance exercise capacity. The WBET programmes varied from 4 to 12 weeks' duration, with attendance 2 to 3 times a week for between 35 and 90 minutes. The average age of participants ranged from 57 to 73 years.
Caveat	The quality of evidence was generally low to moderate, mainly as a result of poor study design and insufficient data. There was insufficient evidence for conclusions to be drawn regarding the long-term effects of WBET in COPD.
Context	LBET (such as walking or cycling) improves exercise capacity and quality of life in people with COPD. WBET (not swimming) is an alternative that may appeal to the older population, those unable to complete LBET programmes, and people with other physical and medical conditions.
Cochrane Systematic Review	McNamara RJ et al. Water-based exercise training for chronic obstructive pulmonary disease. Cochrane Reviews, 2013, Issue 12. Art. No.: CD008290.DOI: 10.1002/14651858. CD008290.pub2. This review contains 5 studies involving 176 participants.
Pearls No. 444, September 2014, written by Brian R McAvoy	

Electromagnetic field treatment effective for osteoarthritis pain

Clinical question	Is electromagnetic field treatment (EFT) effective for the treatment of osteoarthritis (OA)?
Bottom line	EFT had a moderate benefit for patients' pain relief. There is inconclusive evidence that EFT improved physical function, quality of life or radiographic joint structure. No serious adverse effects of EFT were reported. The pulsed EFT trials lasted approximately 4 to 6 weeks, with treatment duration ranging from 27 to 60 hours. All of the studies' participants had OA of one or both knees, or cervical OA, diagnosed by clinical symptoms and radiographic evidence, and the OA was painful despite medical treatment.
Caveat	The quality of the evidence of all included trials was moderate or low. The protocols for pulsed electrical stimulation or pulsed EFT device setting and application varied widely between studies, as did outcome measures.

Context	EFT is currently used by physiotherapists. It is thought it may promote growth and repair of bone and cartilage based on principles of physics, including Wolff's Law, the piezoelectric effect and the concept of streaming potentials
Cochrane Systematic Review	Li S et al. Electromagnetic fields for treating osteoarthritis. Cochrane Reviews, 2013, Issue 12. Art. No.: CD003523.DOI: 10.1002/14651858. CD003523.pub2. This review contains 9 studies involving 636 participants.
Pearls No. 445, October 2014, written by Brian R McAvoy	

Self-management effective for chronic obstructive pulmonary disease

Clinical question	Do self-management interventions in chronic obstructive pulmonary disease (COPD) lead to improved health outcomes and/or reduced healthcare utilisation?
Bottom line	Self-management interventions in patients with COPD were associated with improved health-related quality of life as measured by the St George's Respiratory Questionnaire, a reduction in respiratory-related hospital admissions and improvement in dyspnoea as measured by the modified Medical Research Council Scale. Over 1 year of follow-up, the NNT* to prevent respiratory-related hospital admissions ranged from 8 (high baseline risk) to 20 (low baseline risk). No statistically significant differences were found in other outcome parameters (all-cause hospitalisation, mortality, exercise capacity). **NNT = number needed to treat to benefit 1 individual*
Caveat	It was not possible to pool head-to-head trials because of heterogeneity among interventions, study populations, follow-up time and outcome measures. Hospital-based and rehabilitation centre–based rehabilitation programmes were excluded because self-management often is only a minor part of these very intensive programmes.
Context	Self-management interventions help patients with COPD acquire and practise the skills they need to carry out disease-specific medical regimens, guide changes in health behaviour and provide emotional support to enable patients to control their disease.
Cochrane Systematic Review	Zwerink M et al. Self management for patients with chronic obstructive pulmonary disease. Cochrane Reviews, 2014, Issue 3. Art. No.: CD002990.DOI: 10.1002/14651858. CD002990.pub3. This review contains 29 studies involving 3688 participants.
Pearls No. 446, October 2014, written by Brian R McAvoy	

Abstracts

The actual Cochrane abstracts for the P.E.A.R.L.S are at

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Colophon

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