

## P.E.A.R.L.S Practical Evidence About Real Life Situations



P.E.A.R.L.S are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. The main organisers of the Cochrane Primary Care Field are Bruce Arroll (1), Jaap van Binsbergen (2), Tom Fahey (3), Tim Kenealy (1), Floris van de Laar (2).

The Cochrane Primary Health Care Field is a collaboration between:

- (1) New Zealand Branch of the Australasian Cochrane Centre at the Department of General Practice and Primary Health Care, University of Auckland and funded by the New Zealand Guidelines Group;
- (2) Academic Departments of General Practice in The Netherlands, The Duth College of General Practitioners, and the Netherlands Institute for Health Services Research;
- (3) Department of General Practice, Royal College of Surgeons in Ireland, Dublin.

PEARLS are prepared as an educational resource and do not replace clinician judgment in the management of individual cases.

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The P.E.A.R.L.S published so far are as follows:

- Antibiotics appear to have no benefit in treating acute laryngitis in adults
- Antibiotics or 'watch and wait' for acute otitis media
- Anticholinergics are effective for overactive bladder syndrome in adults
- Antidepressants are effective for neuropathic pain
- Antihistamines and/or decongestants not recommended in children with otitis media with effusion
- Aquatic exercise beneficial in knee and hip osteoarthritis
- A simple whisper test is effective for diagnosing hearing impairment
- Autoinflation for otitis media with effusion helpful in the short term
- Brief alcohol interventions (BAIs) in primary care populations are effective in reducing alcohol consumption in men

- Bupropion and nortriptyline aid long-term smoking cessation but selective serotonin uptake inhibitors (SSRIs) do not
- Cardioselective beta blockers do not produce adverse respiratory effects in chronic obstructive pulmonary disease
- Chinese herbal medicine promising for menstrual pain
- Cognitive behavioural therapy (CBT) has a positive effect on some of the qualitative aspects of tinnitus
- Colchicine is a second line therapy for acute gout
- Combined psychotherapy plus antidepressants or psychotherapy alone is an effective first line treatment for panic disorder with or without agoraphobia, depending on patient preferences
- Contracts for improving patients' adherence cannot be recommended
- Contracts between patients and healthcare practitioners for improving patients' adherence to treatment, prevention and health promotion activities
- Effectiveness of prolotherapy injections for chronic low-back pain uncertain
- Exercise beneficial in fibromyalgia syndrome
- Exercise improves balance in older people
- Glue may be better than stitches, staples or adhesive tape for simple cuts
- Insoles do not prevent back pain
- Is routine therapeutic monitoring of antiepileptic drugs for epilepsy necessary
- Lamotrigine unlikely to benefit chronic pain or neuropathic pain
- Local corticosteroid injections for carpal tunnel syndrome
- Local oestrogen for vaginal atrophy in postmenopausal women
- Low molecular weight heparin (LMWH) and non-steroidal anti-inflammatory drugs (NSAIDs) are the best treatment for superficial thrombophlebitis (ST)
- Nasal saline irrigations effective for chronic rhinosinusitis symptoms
- Nicotine receptor partial agonists help people stop smoking
- Oral erythromycin may be effective in treating the symptoms of pityriasis rosea
- Oral tetracyclines are effective for acne vulgaris
- Prophylactic antibiotics in mammalian bites may prevent wound infection?

- Proton pump inhibitors (PPIs) most effective treatment for oesophagitis
- Psychological therapy based on cognitive behavioural therapy (CBT) principles is effective in reducing anxiety symptoms for short-term treatment of generalised anxiety disorder (GAD)
- Response rates to postal questionnaires can be increased
- School feeding programs may have some small benefits for disadvantaged children
- Screening for abdominal aortic aneurysm.
- Skin grafting effective for venous leg ulcers
- Stimulating the involvement of older patients in their primary care may enhance their health
- Stop using beta-blockers as first-line treatment for hypertension
- Surgical discectomy can benefit some patients
- There is no evidence supporting the use of Chinese medicinal herbs for the common cold
- Topical pimecrolimus is less effective for treating eczema than moderate and potent corticosteroids and tacrolimus
- Topical treatments for chronically discharging ears with underlying eardrum perforations (CSOM) are better than systemic antibiotics
- Vitamin C supplementation may have preventive effects in populations with a high incidence of pneumonia, and may have therapeutic effects in populations with low plasma vitamin C levels

**Some examples of P.E.A.R.L.S are provided in the following pages, courtesy of**

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## PEARLS Practical Evidence About Real Life Situations



### Glue may be better than stitches, staples or adhesive tape for simple cuts

Clinical Question	What is the best way to repair traumatic skin lacerations in children and adults?
Bottom Line	Pain scores and procedure time significantly favoured tissue adhesives over standard wound care (stitches, staples or adhesive tape). There was no significant difference in cosmetic appearance between tissue adhesive and standard wound care on either a Cosmetic Visual Analogue Scale or Wound Evaluation Score.
Caveat	There were small but statistically significant risk differences for dehiscence (favouring standard wound care, NNH 25*) and erythema (favouring tissue adhesives, NNH10). Although there are a few different types of glue available (based on butlycyanoacrylate and octylcyanoacrylate), no one glue seems to be superior. *NNH = number needed to treat to cause harm in one individual.
Context	Lacerations need to be closed to ensure proper healing and to prevent infection or unattractive scarring. This is the first systematic review comparing glue with standard wound closure.
Cochrane Systematic Review	Farion K, Osmond MH, Hartling L, Russell K, Klassen T, Crumley E, Wiebe N. Tissue adhesives for traumatic lacerations in children and adults. <i>Cochrane Database of Systematic Reviews</i> 2001, Issue 4. Art. No.: CD003326. DOI: 10.1002/14651858.CD003326. This review contains 10 studies involving 522 participants.
PEARLS No. 8, August 2007, written by Brian R McAvoy	

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### Local corticosteroid injections improve symptoms of carpal tunnel syndrome

Clinical Question	How effective are local corticosteroid injections for carpal tunnel syndrome (CTS)?
Bottom Line	Local corticosteroid injections for CTS provide greater clinical improvement in symptoms one month after injection compared to placebo (NNT* 2). They also provide significantly greater clinical improvement compared to oral corticosteroids up to three months after treatment. Two injections do not provide significant further clinical improvement of symptoms. *NNT = number needed to treat to benefit one individual.
Caveat	Significant symptom relief beyond one month has not been demonstrated.
Context	CTS is a common problem with a prevalence of 3.8% in the general population. Up to 1/3 of patients can have spontaneous improvement in their symptoms without any formal medical treatment.
Cochrane Systematic Review	Marshall S, Tardif G, Ashworth N. Local corticosteroid injection for carpal tunnel syndrome. <i>Cochrane Database of Systematic Reviews</i> 2007, Issue 2. Art. No.: CD001554. DOI: 10.1002/14651858.CD001554.pub2. This review contains 12 trials with 671 participants.
PEARLS No. 12. September 2007, written by Brian R McAvoy	

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### Ultrasound screening for abdominal aortic aneurysm may reduce mortality in men aged 65 to 79 years

Clinical Question	How effective is ultrasound screening for abdominal aortic aneurysm (AAA)?
Bottom Line	Ultrasound screening, followed by appropriate management, significantly reduced deaths from AAA in men aged 65 to 79 years (NNS *322 to 1312). There was insufficient evidence to demonstrate benefit in women. The cost-effectiveness of a coordinated population-based screening programme may be acceptable but this needs further expert analysis. *NNS = number needed to screen to prevent a death from AAA
Caveat	The incidence of AAA in women is lower than for men. All-case mortality was not significantly different between screened and unscreened groups three to five years after screening, which is to be expected given the relative infrequency of AAA as a cause of death. The "high NNS" is similar to other screening procedures.
Context	AAA is found in 5-10% of men aged 65 to 79 years. The major complication is rupture, which has a mortality of 80% for patients reaching hospital, and 50% for those undergoing surgery for emergency repair. Currently elective surgical repair is recommended for aneurysms discovered to be larger than 5.5 cm to prevent rupture.
Cochrane Systematic Review	Cosford PA, Leng GC. Screening for abdominal aortic aneurysm. <i>Cochrane Database of Systematic Reviews</i> 2007, Issue 2. Art. No.: CD002945. DOI:10.1002/14651858.CD002945.pub2. This review contains 4 trials involving 127,891 men and 9,342 women.
PEARLS No. 14. October 2007, written by Brian R McAvoy	