



### **A. PEDro update (3 June 2019)**

PEDro contains 43,643 records. In the 3 June 2019 update you will find:

- 43,643 reports of randomised controlled trials (33,300 of these trials have confirmed ratings of methodological quality using the PEDro scale)
- 8,842 reports of systematic reviews, and
- 677 reports of evidence-based clinical practice guidelines.

PEDro was updated on 3 June 2019. For latest guidelines, reviews and trials in physiotherapy visit [Evidence in your inbox](#).

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### **B. WCPT's highest global honour goes to Anne Moseley**

Anne Moseley, co-founder of PEDro, received the Mildred Elson Award in the opening ceremony for World Confederation for Physical Therapy (WCPT) Congress 2019.

The Mildred Elson Award is the highest honour the WCPT can bestow. It is awarded for outstanding leadership that significantly contributes to the physiotherapy profession.

Anne was recognised before almost 4,300 physiotherapists for her leadership and commitment to PEDro. Launched in 1999, when the term evidence-based practice was in its infancy, PEDro has grown into the pre-eminent evidence resource for the global physiotherapy community. In this time physiotherapists have performed over 22-million PEDro searches. While PEDro began in Australia, in 2018 it was used to answer over 2.6-million questions posed by users from 213 countries and territories (only 7% of searches being from Australia). PEDro now indexes more than 43,000 randomised trials, systematic reviews and practice guidelines.

“The Mildred Elson Award celebrates the value of physiotherapists working together. PEDro is an exemplar of what is possible through collaboration,” said Anne in her acceptance speech. Examples of collaboration included

obtaining industry support from 70 organisations, volunteers from 32 countries contributing ratings, and translating the web-site into 12 languages.

You can see some of the highlights from the #WCPT2019 opening ceremony in this [video](#).

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## **C. Ianthe Boden wins PEDro prize for the best trial presented at WCPT 2019!**

The PEDro prize is awarded to the person who presents the best report of a randomised controlled trial at the World Confederation of Physical Therapy (WCPT) Congress. The award recognises the achievements of researchers who conduct high quality, clinically important randomised controlled trials. To be eligible, the presentation must have been a primary report for a completed randomised controlled trial that evaluates the effects of a physiotherapy intervention.

Judging was carried out by a panel of international trialists. Scoring was based on quality (risk of bias, size, design and analysis of the trial) as well as significance (importance of the findings for clinical practice).

The WCPT 2019 Congress winner was Ianthe Boden for her State of the Art Platform presentation titled "Incidence of Complications after Emergency Abdominal surgery Get Exercising (ICEAGE) trial: a multi-centre double-blinded randomised controlled trial". The trial concluded that, compared to standard-care, enhanced postoperative physiotherapy halved respiratory complications within the first 14 postoperative days.

The results of the trial will be published soon, and we are looking forward to indexing this article in PEDro. Links to the trial protocol and trial registration are provided below.

[Boden I, et al. ICEAGE \(Incidence of Complications following Emergency Abdominal surgery: Get Exercising\): study protocol of a pragmatic, multicentre, randomised controlled trial testing physiotherapy for the prevention of complications and improved physical recovery after emergency abdominal surgery. \*World J Emerg Surg\* 2018 Jul 3;13\(29\):Epub](#)

[ICEAGE trial - Incidence of Complications following Emergency Abdominal surgery: Get Exercising](#)



Pictured are Associate Professor Anne Moseley, Ianthe Boden and Professor Rob Herbert after the announcement of the prize in the Closing Ceremony of the WCPT 2019 Congress in Geneva.

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#### D. The PEDro “Dance of the subdisciplines 1990-2018” video is fascinating



We have plotted the growth in the number of trials, reviews and guidelines available for each area of practice (or subdiscipline) of physiotherapy. Data are displayed each year from 1990 to 2018. This [“Dance of the subdisciplines 1990-2018”](#) video is fascinating to watch. Keep your eye on “neurology”!

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#### E. #MyPTArticleOfTheMonth resource – how to read an evidence-based clinical practice guideline

Clinical practice guidelines are useful for clinicians as they summarise the available evidence about management of a health condition. A key feature that distinguishes evidence-based clinical practice guidelines is that the treatment recommendations are based on a synthesis of clinical research. Evidence-based clinical practice guidelines are defined as “statements that include recommendations, intended to optimise patient care, that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options” ([Greenfield S et al \(2011\). Clinical Practice Guidelines We Can Trust. Washington, DC: Institute of Medicine](#)).

One source of confusion for clinicians is when there are several guidelines on the same topic produced by different organisations that contain major differences in the treatment recommendations. Fewer, carefully developed guidelines are needed. When appraising guidelines it is important to look at the list of guideline panel

members. Is the guideline produced by a multidisciplinary, representative group of organisations, academics, clinicians, policy-makers, and patients? Do these represent the full range of health professions involved in the management of the health condition?

Conflict of interest among those producing the guideline can introduce bias to the guideline development process. This includes panel members receiving industry funding or a guideline produced predominantly by a health profession likely to benefit from the increased demand generated by the guideline recommendations. To overcome this, guidelines should be produced by a panel that has very few conflicts of interest and explicitly report any conflicts of interest of the panel members. The presence of conflicts of interest is evaluated in the editorial independence domain of the AGREE II critical appraisal tool for guidelines.

The Appraisal of Guidelines for REsearch & Evaluation (AGREE) instrument was developed to help clinicians to evaluate the methodological rigor of guidelines. The second iteration of the AGREE instrument (called [AGREE II](#)) is currently in use. AGREE II is a 23-item checklist that includes items in the domains of: scope and purpose, stakeholder involvement, rigour of development, clarity of presentation, applicability, and editorial independence.

Two resources to help physiotherapists find evidence-based clinical practice guidelines are:

1. The [Physiotherapy Evidence Database \(PEDro\)](#). In June 2019, PEDro indexed 679 guidelines, with links to the full guideline and companion documents.
2. "[A Collection of Clinical Practice Guidelines from 2010 to 2019](#)" produced by the *Journal of Physiotherapy*. On 27 April 2019, this compilation included 63 guidelines, with links to a short appraisal and the full guideline.

Philip van der Wees provided a great overview of clinical practice guidelines in his presentation entitled "[How to use evidence in the context of individual patients](#)" from the "Application of evidence" session (FS-10) from the World Confederation for Physical Therapy Congress in Geneva in May 2019.

Your ability to read scientific articles reporting the results of evidence-based clinical practice guidelines will improve with practice. Make the commitment to read at least one article per month and share your reading with the global physiotherapy community in #MyPTArticleOfTheMonth.

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## F. #MyPTArticleOfTheMonth – what is Darren Brown reading?



Darren Brown is a clinician and academic from Chelsea and Westminster Hospital National Health Service (NHS) Foundation Trust in London, United Kingdom who specialises in the treatment of Human Immunodeficiency Virus (HIV). Chelsea and Westminster Hospital NHS Foundation Trust is the largest HIV unit in Europe, and

Darren leads the physiotherapy service providing interventions in both inpatient and outpatient settings for adults living with HIV. Darren champions and advocates for the role of physiotherapy across the continuum of care for HIV at local, national and international levels. He is the HIV/AIDS special interest coordinator of World Confederation for Physical Therapy (WCPT) Subgroup IPT-HOPE, WCPT Congress Programme Committee member for Geneva WCPT 2019, vice-chair of the UK Rehabilitation in HIV Association, and member of Canada-International HIV Rehabilitation Research collaborative.

For the 36.9 million people living with HIV globally, effective treatment offers normal life expectancy. Consequently people living with HIV surviving past 50 years of age are increasing unprecedented rates. As people live longer with chronic HIV infection, they are susceptible to health conditions arising from the underlying infection, potential side effects of treatments, and ageing. Cardiovascular disease is a common comorbidity. Rehabilitation recommendations to address disability experienced by people living with HIV include aerobic and progressive resistance exercise. Darren has recently read two research articles on this topic.

[Zech P et al. Effects of aerobic and resistance exercise on cardiovascular parameters for people living with HIV: a meta-analysis. \*J Assoc Nurses AIDS Care\* 2019;30\(2\):186-205](#)

This meta-analysis of randomised controlled trials evaluated the effect of aerobic and resistance exercise alone, and in combination, for people living with HIV. Cardiovascular outcomes included VO<sub>2</sub>max, 6 Minute Walk Test, maximum heart rate, resting heart rate, systolic and diastolic blood pressure, and maximum power output. Darren says: "This is the first time that meta-analysis has been used to evaluate the effects of exercise on the 6 Minute Walk Test. The review also performed subgroup analysis on the role of exercise type, professional supervision, exercise frequency and duration, control groups and study quality." Results indicate that, in comparison to the control conditions, there were moderate and large effect sizes in favour of exercise interventions for VO<sub>2</sub>max and 6 Minute Walk Test, respectively. Combined aerobic and resistive exercises had a larger effect size compared to aerobic exercise alone. Effect sizes were also larger for exercise programs with a dose of at least 3 sessions/week for at least 150min/week. Darren says: "This research has important implications for physiotherapists globally who can support people living with HIV to exercise. Combining aerobic and resistance exercise will give people living with HIV a protective factor against comorbidities related to ageing, cardiovascular disease, or HIV infection. The 6 Minute Walk Test can be used to monitor progress."

[Simonik et al. Are you ready? Exploring readiness to engage in exercise among people living with HIV and multimorbidity in Toronto, Canada: a qualitative study. \*BMJ Open\* 2016;6\(3\):e010029](#)

This qualitative study used face-to-face semi-structured interviews to explore readiness to engage in exercise among adults living with HIV who had two or more comorbidities. The authors developed a framework that describes readiness on a dynamic spectrum, whereby readiness can fluctuate based on many factors (including the complex and episodic nature of living with HIV, social supports, perceptions and beliefs, past experience with exercise, and accessibility). While the framework was developed specifically for people living with HIV and multimorbidity, it may also be applicable to people living with other chronic and episodic health conditions. Darren says: "Many people living with HIV are not meeting physical activity guidelines, so exploring the readiness to

engage in exercise is important for understanding and promoting exercise as a beneficial self-management strategy.”

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We thank the:

- [Australian Physiotherapy Association](#)
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- [Associação Espanola de Fisioterapeutas](#)
- [Taiwan Physical Therapy Association](#)
- [Félag Sjúkrabjálfara](#)
- [Suomen Fysioterapeutit](#)
- [Association Luxembourgeoise Des Kinésithérapeutes](#)
- [Società Italiana di Fisioterapia, Komora Fizioterapeuta Crne Gore](#)
- [UNIFY ČR](#)
- [Lietuvos Kineziterapeutų Draugija](#)
- [Physiotherapeuten Verband Fürstentum Liechtenstein](#)

who have just renewed their partnership with PEDro for another year.

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## **H. Systematic review found that non-invasive positive pressure ventilation may reduce hospital mortality in people with acute cardiogenic pulmonary oedema**

This Cochrane systematic review evaluated the effectiveness and safety of non-invasive positive pressure ventilation compared to standard care for adults with acute cardiogenic pulmonary oedema. Randomised controlled trials recruiting participants aged 18 years and older with a diagnosis of acute cardiogenic pulmonary oedema that evaluated nasal or face mask non-invasive positive pressure ventilation (continuous positive airway pressure, bilevel non-invasive positive pressure ventilation, or both) were included. Cross-over and cluster trials were excluded. The primary outcome was hospital mortality. Secondary outcomes included endotracheal intubation, incidence of acute myocardial infarction during hospitalisation, after starting treatment. The quality of the evidence was assessed using the GRADE approach.

24 trials (n = 2,664 participants) were included. Most trials were conducted in emergency departments or intensive care units. The mean age of the population was 73 (SD 9) years. There was low-quality evidence that

non-invasive positive pressure ventilation may reduce hospital mortality compared to standard care (relative risk 0.65, 95% confidence interval (CI) 0.51 to 0.82; n = 2,484 participants; number needed to treat = 17). There was moderate quality evidence that non-invasive positive pressure ventilation probably reduces endotracheal intubation rates (RR 0.49 95% CI 0.38 to 0.62; n = 2,449 participants; number needed to treat = 13). There was moderate quality evidence that non-invasive positive pressure ventilation probably does not reduce the incidence of acute myocardial infarction compared to standard care (RR 1.03 95% CI 0.91 to 1.16; n = 1,313 participants; number needed to treat = 5). The use of non-invasive positive pressure ventilation in patients with acute cardiogenic pulmonary oedema may reduce mortality and probably reduces the risk of endotracheal intubation.

Berbenetz N et al. Non-invasive positive pressure ventilation (CPAP or bilevel NPPV) for cardiogenic pulmonary oedema. *Cochrane Database Syst Rev* 2019;Issue 4

Read more on [PEDro](#).

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## I. Next PEDro update (July 2019)

The next PEDro update is on Monday 1 July 2019.

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