

matching ability of each method was assessed, alongside its ability to avoid large weights (i.e. avoiding high leverage), and maximise effective sample size (ESS). Each method's overall ease of use and impact upon estimates of treatment effectiveness were also evaluated.

**Results.** All methods were able to precisely match the aggregate level data. However, the Entropy Balancing and Polynomial Weighting both outperformed the Signorovitch method in terms of having the lowest maximum weights. The Polynomial Weighting provided the highest ESS. The Entropy Balancing method was arguably the most challenging to implement, whilst the Signorovitch method the least. The Polynomial Weighting method appears to provide the greatest flexibility to the user.

**Conclusions.** Whilst the Signorovitch method has become almost synonymous with MAIC, the Entropy Balancing and Polynomial Weighting methods offer potentially superior performance. In the absence of head-to-head trial data, these new MAIC approaches should provide less biased and more precise estimates of comparative effectiveness – ultimately leading to better decision making by regulators and payers.

## VP92 Portable Robotic Exoskeleton Stride Management Assist (SMA®)

Luis María Sánchez-Gómez, Ana Isabel Hijas-Gómez ([ahijas@isciii.es](mailto:ahijas@isciii.es)), Mar Polo-DeSantos and Setefilla Luengo-Matos

**Introduction.** The Stride Management Assist (SMA®) device consist in a portable robotic exoskeleton designed for gait rehabilitation and training by repetition of walking patterns with automated regular gait cycles. Used for adult population with gait disorders of neurological or musculoskeletal origin that require rehabilitation. The objective of this work is to assess its efficacy and safety.

**Methods.** This technology was identified by the early Awareness and Alert System, “SINTESIS-new technologies” of AETS-ISCIII. An early assessment of the technology was conducted. The searched databases were: Pubmed, Embase, WOS, Tripdatabase, ClinicalTrials.org and Cochrane Library. Clinical studies using the device published in any language until 10 October 2018 were reviewed.

**Results.** We found 3 abstracts to congresses and 6 clinical trials that evaluated the use of the device. Outcomes measures among studies included spatiotemporal gait parameters, energy expenditure, muscular activity and functional performance. Five studies consisted in proof-of-concept analysis; 3 studies evaluated the effect of gait training with SMA® compared with conventional therapy alone in individuals after stroke (2 studies) and Parkinson disease (1 study); and 1 before-and-after study assessed the effect of gait training with SMA® in elderly adults. During its use, improvements in spatiotemporal gait parameters were described in 4/5 studies, and 2/5 studies showed less energy expenditure versus 2/5 studies that found no differences. After gait training, 3/4 studies described greater improvements in gait

parameters when associated its use. Only one clinical trial collected safety data reporting no adverse events.

**Conclusions.** The SMA® device allows to increase the efficiency and parameters of the march during its use. The assistance in the stride might have an impact on health by facilitating the recovery of the gait; however, further research is needed to determine the feasibility in the latter case since comparative studies with conventional therapy are limited.

## VP95 Getting the Best Of 3 Ways-Merging EUnetHTA GRADE And Cochrane Guides

Luciana Ballini ([luciana.ballini@regione.emilia-romagna.it](mailto:luciana.ballini@regione.emilia-romagna.it)), Giulio Formoso, Maria Chiara Bassi, Laura Bonvicini, Paolo Bottazzi, Paolo Giorgi Rossi, Francesco Venturelli and Massimo Vicentini

**Introduction.** European cooperation in Health Technology Assessment (HTA) requires joint assessments to be of high quality, providing findings transferable into national HTA report. To this aim, we piloted the combining of methodological guidance of EUnetHTA for Relative Effectiveness Assessment (REA), GRADE for selection/rating of outcomes and assessing quality of evidence, and Cochrane for Systematic Reviews, while carrying out a collaborative REA on Femtosecond Laser Assisted versus Standard Cataract Surgery.

**Methods.** While developing the collaborative REA, we used the three organizations' handbooks, templates and tools for Scope, Project Plan (PP), Summary of Findings, Effectiveness (EFF) and Safety (SAF) domains. We structured the PP according to the EUnetHTA template and added detailed methods on EFF and SAF systematic reviews, as per Cochrane Handbook. For the Scope we convened a multidisciplinary panel for selection and rating of importance of outcomes and clinically significant difference, using the GRADEpro platform. We developed the complete report adopting the EUnetHTA REA Core Model. We used Cochrane's tool Revman to assess risk of bias of included studies for each outcome, and to carry out metanalyses. We applied the GRADE approach to assess quality of evidence for each outcome and to express level of certainty in the estimates. We used the Cochrane handbook's guidance for structuring a scientific abstract and a Plain Language Summary to integrate the Summary of Findings.

**Results.** The PP resulted in a detailed scientific and operational protocol, receiving extensive and constructive internal and external peer review. Reporting of EFF and SAF domains followed EUnetHTA Assessment Elements while keeping the order of stakeholders' rating of outcomes' importance. Graphic representation of risk of bias for each outcome contributed to immediacy of the data quality assessment and transparency of the judgement on certainty. The scientific abstract and the Plain Language Summary, facilitated the external dissemination of results.

**Conclusions.** Merging of the three most important methodological contributions in the field proved successful without altering the distinctive trait of the REA.