Evidence-based treatment APP for mechanical low back pain powered by AI





Lower back pain is one of the most common conditions presenting to health professionals in Canada. Intervention and management options are abundant but many without evidence to support their use.

National and international clinical practice guidelines recommend conservative treatments and exercise based self-management.

However, compliance with these seemingly simple recommendations is often low, and difficult to track.

Often times, low compliance is a result of patients being differentially motivated to not participate in the recommended self-management program. They may not be able to find the time to perform the exercises; they forget how to perform the movements; they are fearful of flaring their pain and their treating providers may not have the time and/or resources to follow up and remind the patient of the importance of the prescribed exercises. In addition, with limited resources; and time restrictions, often LBP education is rushed or missed by the treating provider during consultations.

SelfBack is an app that uses artificial intelligence to design multimodal individualized self-management plans to support patients with mechanical LBP. SelfBack's AI interface will also provide supportive patient education, follow-up, and motivation to ensure the patient stays on track with their LBP self-management program. SelfBack is evidence-based, compliant with all Canadian data security and health standards, and has high user satisfaction. By using SelfBack, the patient is guaranteed a high-quality, personalized course that follows both national and international clinical practice guidelines. Randomized control studies evaluating the effectiveness of SelfBack in supporting patients with LBP has revealed it can increase the probability of a positive outcome by 32% compared to usual treatment.

SelfBack is designed to support clinicians managing patients with LBP by complimenting the in-clinic evidence based care being provided. It improves the likelihood of a positive outcome from clinical care and support.

SelfBack app has been evaluated for its ability to support a patients recovery from a mechanical LBP in a randomized controlled study conducted in Denmark and Norway. 461 patients were enrolled in the study and were followed over a 12 month period. The study showed that SelfBack had a positive effect on both male and female patients in the 18-82 age group specifically in terms of pain levels and the patients' sense of self-efficacy despite pain, both of which improved by 14%. Patient's average pain reduction improved by 38% and Fear Avoidance Belief scores improved by 24%. Patients who used the Self-Back app were 32% more likely to achieve a large functional improvement when compared to patients who did not use the app.

The results of the RCT have been published in JAMA Internal Medicine, and can also be accessed via our website at selfback.dk.

LOGO ??

"**CLINIC/Practitioner NAME** is a certified SelfBack practitioner and is familiar with the SelfBack intervention strategy. For supportive manual therapy and rehabilitation advice that compliments your SelfBack based care, contact: **CLINIC/PRACTITIONER NAME**

THE CHALLENGE

THE SOLUTION

THE EVIDENCE

C E Approved Medical Device Class 1

DOCUMENTATION:



CE



ORCHA The ORCHA Review is a digital health assessment carried out on behalf of the NHS. ORCHA's Baseline Review indicates the extent to which an app meets the relevant and mandatory standards, which provides an objective and independent score. SelfBack: Baseline review score: 71 % (Approved for use in NHS, England)

The CE mark is the manufacturer's declaration that the product meets the requirements of EU



National Institute for Health and Care Excellence



DTAC (NHS' Digital Technology Assessment Criteria (DTAC))

CE MARK AS A MEDICAL DEVICE CLASS 1 (MDD)

standards within the relevant product area. SelfBack has a CE Medical Device Class 1.

This is Europe's most developed system for assessment and accreditation of digital health apps. SelfBack is proud to have been evaluated and approved by this robust review process. Apps are assessed on 178 different criteria using NICE priciples, under the following headings: 1) Clinical Safety

2) Data Protection
3) Technical robustness
4) Interoperability

5) Ease of use and inclusion

NordDEC

NordDEC is the Common Nordic Accreditation Framework for health apps used in the Nordic region of Europe.

This framework has been designed in a collaborative manner by the Nordic Council of Ministers. It is used for the accreditation of Health apps in the Nordic region of Europe via standardized assessment criteria. This is the standard used by the Danish Medicines Agency's National App Guide, which is expected to be published in 2024. SelfBack is proud to already meet the NordDEC standards.





SELFBACK TRANSLATES GLOBAL GOALS INTO PRACTICE

It requires a conscious joint effort to achieve the UN's Global Goals (www.globalgoals.org/). SelfBack recognizes that peace, security, international cooperation, as well as social, economic, and environmental development are closely linked. SelfBack therefore is proud to actively contribute to the Global Goals initiative of tackling the world's biggest challenges by helping to improve the management of he world's leading cause of years lived with disability, and a top 5 contributor to the global burden of disease: low back pain.



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