



ASX ANNOUNCEMENT

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**Clinical trial using dorsaVi sensors demonstrates significant reduction in back pain**

*Results published in peer reviewed journal BMC Musculoskeletal Disorders*

**Melbourne, Australia** – New data from a cluster randomised controlled trial released today demonstrated that back pain patients monitored and treated using wearable movement sensors from dorsaVi Ltd (ASX:DVL) had a significant and sustained improvement in pain and functional ability.

Across all primary outcome measures, participants treated with the dorsaVi sensors with biofeedback showed a 35 % to 47 % improvement at 12 months, which were all above the threshold for clinically important difference (>30 % of baseline scores).

The study results were published online in the leading medical journal BMC Musculoskeletal Disorders.

The journal article was authored by Associate Professor Peter Kent, Department of Sports Science and Clinical Biomechanics, University of Southern Denmark and an independent Senior Researcher and Epidemiologist at Monash University, and is available at [www.biomedcentral.com](http://www.biomedcentral.com).

It reports on the 12 month, multicentre, cluster randomised, placebo controlled clinical trial sponsored by dorsaVi and the Victorian Government. The trial involved 112 patients – 58 in the interventional group (which received ViMove) and 54 in the control group. The results, as published in the paper, are highly positive and validate that intervention by ViMove resulted in “significant and sustained improvements in pain and activity limitation that persisted after treatment finished.”

This is the first clinical trial of its kind to investigate the effect that technology can have on the rehabilitation of low back pain (LBP). The clinical trial investigated whether changing patterns of lumbo-pelvic movement and/or posture using motion sensor biofeedback, provided by ViMove, in people with LBP would lead to reduced pain and activity limitation when compared with guidelines-based medical treatment or physiotherapy.

LBP is highly prevalent and globally is the leading cause of disability, ahead of ischaemic heart disease, chronic obstructive pulmonary disease, and other musculoskeletal disorders, including osteoarthritis. In the past, compared with placebo or no treatment, most non-surgical treatments for non-specific LBP showed only small to moderate effects with one treatment showing little superiority over the other. In addition, short term treatment effects typically reduce over the subsequent year.

dorsaVi CEO, Dr Andrew Ronchi, said: “Medical adoption by health practitioners is based on having protocols supported by clinical evidence and published in peer reviewed journals. We are delighted with the results of the trial and that it has now been published in a peer reviewed journal.”

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dorsaVi's ViMove is a wearable sensor system that turns human movement into actionable, easily interpreted data. The sensors can track a patient's movement at 200 frames per second. The sensors provide real-time feedback about high risk positions for patients with back pain and also encourages positive movement patterns. This data informs decisions by the treating healthcare professional to modify their patients' daily movements, thus reducing their risk of another episode and reducing recovery time. ViMove is approved for use in Australia and Europe and cleared by the FDA under 510(k) for the United States.

***About the trial***

The 12 month study enrolled 112 patients at eight sites including the Austin and Epworth Hospitals. All patients reported back pain, with a vast majority (85%) classified as chronic back pain patients. All patients wore ViMove sensors and had 6-8 office visits over 10 weeks. Follow-up appointments were held at 2, 3, 6 and 12 months with their clinicians. Clinicians in the Intervention arm got access to the ViMove sensor data to guide care and their patients received real time feedback in weekly monitoring sessions. Clinicians and patients in the control group were blind to the data and were given no feedback by the ViMove device.

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**About dorsaVi**

dorsaVi (ASX:DVL) is an ASX company focused on developing innovative motion analysis device technologies for use in elite sports, occupational health and safety, and clinical applications. dorsaVi believes its wearable sensor technology enables – for the first time – many aspects of detailed human movement and position to be accurately captured, quantified and assessed outside a biomechanics lab, in both real-time and real situations for up to 24 hours.

Our technology has applications across three sectors:

- **Clinical:** ViMove is transforming the management of patients by providing objective assessment, monitoring outside the clinic and immediate biofeedback. ViMove is currently used by medical and physiotherapy practices in Australia and the United Kingdom and is now available in the United States following FDA 510(k) clearance.
- **Elite Sports:** ViPerform is allowing coaches and medical teams managing elite athletes and teams to screen athletes and provide objective evidence for decisions on return to play, measure biomechanics and provide immediate biofeedback out on the field, tailor and track training programs and optimise technique and peak performance. ViPerform is being used by AFL and NRL clubs in Australia, clubs in the Barclays Premier League, Australian and Victorian Institutes of Sport, various Olympic teams and athletes internationally, and Cricket Australia.
- **OH&S:** We combine innovation, measurement and quality to reduce workplace incidents, costs, meet compliance and improve brand reputation. ViSafe enables employers to assess risk of injury for employees as well as test the effectiveness of proposed changes to workplace design, equipment or methods based on objective evidence. ViSafe has been used by major corporations including Coles, Woolworths, Toll, Toyota, Orora (formerly Amcor), Crown and BHP Billiton. Australian Workplace Compliance delivers risk mitigation through compliance to OHS, Quality Management Systems, Company Policy and Process.

Further information is available at [www.dorsavi.com](http://www.dorsavi.com).

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