FES Evidence

OML | Leading FES Rehabilitation

In excess of 7000 patients have received treatment for dropped foot using FES in Salisbury since the service began. Over 20,000 have received treatment elsewhere in the UK.

The Odstock Dropped Foot Stimulator (ODFS®) Pace was developed at Salisbury District Hospital under funding from the Department of Health.

The device was evaluated for dropped foot in chronic stroke in a randomised controlled trial (RCT).[1,2] Additional case series data was collected from patients with MS and incomplete spinal cord injury.[3] The studies demonstrated:

- Increased walking speed when the ODFS® Pace is used
- Reduced walking effort
- Reduced spasticity
- Increased quality of life
- Significant cost utility gain (cost-effectiveness - QALY analysis)

The clinical service modal and evidence for the ODFS® Pace were presented to the Development and Evaluation Committee of the South and West Regional Health Authority who subsequently recommended the treatment for use in the NHS for patients with dropped foot due to upper motor neurone lesions.[4,5] An audit of the clinical service confirms the results of the RCT and demonstrates a training `effect from using the ODFS® and a high level of treatment adherence (86% at one year).[6,7,8,9] The main reasons patients choose to continue to use the ODFS® are:[10]

- Reduced effort of walking
- Increased confidence when walking
- Reduced trips and falls

A RCT of the use of the device with secondary progressive MS demonstrated increased walking speed with the device, 72% reduction in falls and a significant positive impact on activities of daily living in comparison to a group that received physiotherapy.[11,12] An audit of 186 users of the ODFS® Pace who had MS showed that FES improves functional ambulation category.[15]

The ODFS® Pace has been demonstrated to be a clinically and cost-effective long term assistive device with an average use of 5 years,[17, 18] and it can be cost-effective in comparison to an ankle foot orthosis.[19]

Studies using the ODFS® Pace with people who have Parkinson's disease indicated that the device may have a significant training effect, reducing bradykinesia and may also reduce falls and freezing.[13, 20, 25]

Use of the ODFS® was recommended in the Royal College of Physicians Clinical Guidelines on Stroke.[14]

FES is recommended in the NICE guidelines IPG278,[16, 21, 2,3 24] ACPIN guidelines[26] and ANPT guidelines.[22]

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