

Lessons Learned- The Implementation of a novel Neuromuscular Electro-Stimulation (“NMES”) device into a community home care program

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Background

- Community wound care in Canada consumes \$3.9 billion in financial resources (3% of total health expenditures)
- Care provider/funders are looking for efficacious and cost-effective technology/techniques to accelerate wound healing—largely an unmet need.
- A novel technology was presented to a community care access centre (CCAC) in Ontario, Canada during 2013.
- Addresses the wound by improving blood flow—while generating a natural healing response through stimulation of the common peroneal nerve activating the calf and foot muscle pumps leading to increasing venous, arterial and microcirculatory blood flow.



Aim

- To review the implementation challenges and learning derived from the adoption of a novel blood flow enhancement technology into a home care setting.
- To share this experience to help others as they adopt NMES into their programs.

References:

1. Wounds, National Stakeholder Round-table, June 2012
2. Warwick DJT, Shaikh A, Gadola S, Stokes M, Worsley P, Bain D, Tucker AT, Gadola SD Neuromuscular electrostimulation via the common peroneal nerve promotes lower limb blood flow in a below-kneecast: A potential for thromboprophylaxis. Bone Joint Res. 2013 Sep 2;2(9):179-85. doi: 10.1302/2046-3758.29.2000176. Print 2013.
3. Tucker AT, Maass A, Bain D, Chen LH, Azzam M, Dawson H, Johnston A Augmentation of venous, arterial and microvascular blood supply in the leg by isometric neuromuscular stimulation via the peroneal nerve. Int J Angiol. 2010 Spring; 19(1):e31-7.



NURSING TRAINING

Application of the Geko Device

Step 1
Feel the bony 'bump' just below your knee on the outside of your leg.

Step 2
Remove the clear film

Step 3
Apply the Geko device with the arrows lined up with the centre of the bony bump and the tail wrapping around towards the back of your leg. It can also be applied to the back of the knee sitting just above or just below the crease with its operating button located to prevention. Your nurse will likely suggest outlining the area with a marker so you can find it easily.

Step 4
Click the button until you see your leg jerk or swing.

Methodology

- CCAC was the first in the world to fund this novel NMES device following a one year evaluation program.
- Transitioning from evaluative to routine use involved a broad range of educational/communication strategies.

Results

- The evaluation of the technology in refractory venous leg ulcers exceeded expectations
- For this reason, the technology was adopted into routine use and an education and implementation plan was developed.
- Traditional communication strategies resulted in roll-out delays from the original plan.
- Once the learning program was refined, the program was flawlessly implemented with dozens of patients already benefitting from the new therapy.

Conclusions

Lessons learned from the first implementation may benefit many other centres across Canada as this novel technology is adopted.

