



**221 Subject Randomized Controlled Trial: Edema and Wound Healing Outcomes in Renal Transplant Patients**  
Lawson Research, London Health Sciences Centre, London, Ontario<sup>1,2</sup>  
The geko™ device vs Intermittent Pneumatic Compression and Thromboembolic Deterrent Stocking

Measure	Outcome	Significance
Demographics	No significant difference	None
Leg Edema <sup>1</sup>	IPC 3.6 cm vs 2.5 cm geko™ device	P=0.001
Weight Gain <sup>1</sup>	IPC 5.18 kg vs 4.06 kg geko™ device	P=0.003
Urine Output Total <sup>1</sup>	IPC 12.6 L vs 15.99 L geko™ device	P=0.003
Higher Femoral Vein Velocity <sup>1</sup>	IPC 14.41 cm/sec vs 18.9 cm/sec geko™ device	P=0.001
Wound Healing <sup>2</sup>	POD 3/POD 5	P=0.04/P=0.0003
Wound Infections <sup>2</sup>	29% of IPC patients vs 12% geko™ patients	P=0.03
Length of Stay <sup>1</sup>	9.36 days IPC vs 8.15 geko™ ~ 1 less day than IPC	P=0.038
Mobility <sup>2</sup> (Pedometer)	1099 steps IPC vs 1231 geko™ device	P=0.009
Hospital Observation	Cost savings of \$2,300.00/patient with geko™ device	

1. Wen Xie *et al.* Daily use of a muscle pump activator device reduces duration of hospitalization and improves early graft outcomes post-kidney transplantation: A randomized controlled trial. E-pub ahead of print 2020 <https://cuaj.ca/index.php/journal/article/view/6487>
2. Shahid A *et al.* Use of a muscle pump activator leads to improved lower limb edema, lower limb blood flow, and urine output compared with standard ted stockings and compression devices following kidney transplant: a randomized controlled trial. Transplantation Proceedings. 2019; 51(6): 1838-44. <https://doi.org/10.1016/j.transproceed.2019.04.032>

Learn more at [www.gekowound.ca](http://www.gekowound.ca)