

Patient evaluation of the Echelon foot using the Seattle Prosthesis Evaluation Questionnaire

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Summary

In this case report, the clinical impact and user satisfaction levels when using a hydraulic ankle foot system compared to a non-hydraulic foot system was examined for different amputation levels.

Method

Components: Echelon hydraulic ankle-foot, compared to either Esprit or Multiflex foot.

Measurements: Seattle Prosthesis Evaluation Questionnaire (PEQ).

Subjects: 9 male patients (3 unilateral trans-tibial, 3 trans-femoral, 3 bilateral trans-tibial; 42-62 years).

Data collection protocol: Patients were asked to evaluate their current foot (Esprit, Multiflex), then again 4 weeks post fitting using the Echelon.

Results

Statistically significant increases in satisfaction were found in most PEQ assessment domains with the largest improvements for 'ambulation satisfaction' (+16.7 points), 'prosthesis satisfaction' (+19.6 points) and 'gait satisfaction' (+25.3 points), all $p < 0.01$. The largest magnitude of improvement was reported by the bilateral amputee group with a 33.4 point improvement in gait satisfaction.

Conclusion

Use of a hydraulic ankle improves patient levels of satisfaction across amputation levels. In particular, the use of hydraulic self-aligning ankles should be considered in all bilateral cases where the patient is able to achieve outdoor walking.

Products with Related Technology:

Linx, Elan, Echelon, EchelonVT, EchelonVAC, Avalon

