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## Clinical Evaluation Summary Report

**Date of Summary:** 3/22/17

Case study  clinical investigation

**Investigation/case conducted by:** Amanda LaVigne, Rehab Manager at McLaren Bay Region

**Location(s) of Investigation:** Bay City, Michigan. Acute Care Hospital

**Number of patients involved:** 1

**Duration of the study:** Case report over 4 days

**Timeline of study:** 2015

**Description of patient groups (demographics and/or condition studied):** Patient was admitted to the Neurological Step-down unit after suffering from a stroke, and being admitted through the emergency room. The facility that was described had a mature safe patient handling program, and was embarking on an early mobility program.

**Description of the study (attach additional pages if necessary)** The case study outlined how physical and occupational therapists chose equipment for this patient. There were many different safe patient handling options to choose from in this facility. This case described how they decided to use the Total Lift Bed as opposed to ceiling lifts or floor-based dependent lifts, powered sit to stand lifts or non-powered lifts.

**Summary of study results:** The order of differential decision-making began with ruling out manual assistance because of the weight and dependency level of the patient. Lifting her manually would have exceeded the safe lifting limit for the therapists as part of the safe patient handling program at this facility. The next consideration was the treatment goals for therapy. These included standing, weight bearing and preparing the patient for functional transfers. She was very independent prior to coming into the hospital after her stroke. This eliminated the passive options that would not allow weight bearing: (Ceiling lift or floor based lift with passive sling). Powered sit-to-stand devices and the TLB were still options to consider.

Patient performance and medical condition were next considered. She had fluctuating fatigue and her heart rate was very variable. She experienced rapid heart rate (Tachycardia) frequently.

The staff chose the TLB over other options because if her heart rate increased, they could easily put her back to flat, and could gradually progress her upright weight bearing activities. Additionally, time and accessibility was a determining factor. Using the bed allowed staff to get the most number of upright/weight bearing minutes per session without adding slings and hooking up to the overhead lift.

### **Critical evaluation of the results:**

This case example shows very clearly how the TLB provides solutions to clinical problems, and how it's features align with other Safe Patient Handling Devices, however the limitations of this study are just one patient. The application for the TLB in patients with stroke is safe and feasible, and the neurological patient population are a group that can definitely benefit from the technology.

### **Relevance of results for Risk analysis or design processes:**

Neurological patients can be safely treated with the TLB. Its accessibility in units where patients with neurological conditions are treated is indicated. This study also suggests more work needs to be done to prove the benefits of the TLB for saving staff time, and maximizing what therapy can do in one treatment session, versus using other technologies.



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