Targeted Muscle Reinnervation and Occupational Therapy in various rehabilitation settings

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Targeted Muscle Reinnervation (TMR) is a new surgical technique for transhumeral or higher levels of upper extremity limb loss. The rehabilitation team at RIC has seen great success with their patients. RIC has a unique opportunity in their research environment as it allows for close supervision with socket modifications, therapy training and component/software program management (prosthetists, engineers, and therapists on site and patient attends training for several hours a day for an extended time period).

In the United States, TMR is also being done outside the research environment in the following locations: Harborview Medical Center in Seattle, WA, Walter Reed Army Medical Center (WRAMC) in Washington, DC and Brooke Army Medical Center (BAMC) in San Antonio, TX.

This paper will discuss and share experiences outside of the research setting in the US. The two other settings are military and healthcare/insurance.

The military setting will allow for close supervision as well (prosthetists and therapists on site and have treatment/training once a day), but not as close as the research environment. The soldiers take leave from the hospital, have various family/military obligations and could possibly have other medical issues that interfere with treatment/training progression.

The healthcare/insurance setting does not allow for close supervision as rehabilitation will typically be on an outpatient basis. (Prosthetists and therapists aren’t necessarily in the same building and treatment may be for 1 hour/day times 2-3 times a week secondary to insurance limitations).

The goal in the near future is to bridge the current gap between research and “insurance world” applications.