VA Research Highlight

Early Feasibility Study of the Percutaneous Osseointegrated Prosthesis for Above-Knee Amputees

George E Wahlen VA Medical Center,
Salt Lake City, Utah

Why this research is important:

There is a large population of amputee patients within the VA, military, and civilian hospital systems using socket technology to attach their prosthetic limbs. Many of these individuals are severely restricted in their daily lives due to the documented limitations in conventional socket technology such as skin breakdown, poor fit, and pain.

Summary:

The Percutaneous Osseointegrated Prosthesis (POP) is a new osseointegrated (OI) prosthetic device, developed by VA scientists in collaboration with DJO Surgical, as a direct skeletal docking system for prosthetic limbs following above-knee limb amputation. The POP system consists of an endoprosthetic stem that is implanted directly into the remaining bone and a post that connects to the stem and exits through the skin. This early feasibility study of our POP implant is the first OI device clinical trial to be approved by the FDA within the United States and is currently being conducted at the Salt Lake City VA to examine the efficacy and safety of this novel device.

How the research will improve Veterans' lives:

This emerging technology is being developed to better restore function to Veteran amputees by providing a secure and comfortable fit for their prosthesis. By alleviating a majority of complications associated with traditional socket suspension systems, this novel prosthetic device has the potential to significantly improve clinical care for amputees, the patient's function and overall quality of life.

Dr. Sarina Kay Sinclair

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