Orthotic Protocol in the Acute Rehab Hospital & Skilled Nursing Facility Utilizing Immediately Available Orthotics

Generally speaking once a person experiences a debilitating condition such as a stroke (CVA), Traumatic Brain Injury (TBI), Spinal Cord Injury (SCI), or advanced diabetic neuropathy they are admitted to a hospital intensive care unit to be monitored for several days until they are medically stable to be admitted to the acute rehabilitation unit where they will undergo physical, occupational, speech and vocational therapies.

Usually prior to being discharged from the Intensive Care Unit (ICU) the patient has been evaluated by a physiologist who will oversee their rehabilitation process. Typically, these patients are not too active in the ICU stages where they will only partake in various bedside range of motion (ROM) and strengthening exercises. It is here that a more proactive approach should be considered for lower and/or upper extremity orthotic intervention to begin to help complement the therapeutic and function goals due to the various etiologies that are present with most of the patients.

The goal is to provide the patient with a cost-effective orthosis that can be versatile in many phases of the patients stay and as important even after discharge from the hospital setting. The patient is typically evaluated for an orthosis by a Licensed Orthotist who specializes in the design, customization, fitting, and follow-up of many different variations of orthotics based on the specific needs of the patient. For example, if it was determined that a patient who was admitted with a stroke has paralysis on the right side of their body and consequently cannot voluntarily move their right lower extremity the orthotist would consult with the physician and therapist to determine ROM/strength limitations or any other pertinent physical or mental deficiencies that are present before a final determination is made on what orthosis is would be best for the patient. Consequently, the physician writes or prescribes for a general orthosis prior to the orthotist's evaluation and the orthotist is the one who mainly develops the design criteria as per their expertise.

Many studies have been conducted on the treatment of stroke especially in the early stages. It has been determined that early intervention to promote independent movement is the key to control the biomechanical issues associated with stroke patients. The end result is that this process promotes motor relearning through repetitive practice. Unfortunately, many patients cannot independently participate in functional training activities because hemiparesis limits upper or lower extremity functions. This is where rehab therapies in accordance with the appropriate orthotic device will help.

Once consulted to provide a patient for an AFO (ankle foot orthosis) or KAFO (knee ankle foot orthosis) the orthosis of choice in the acute stages should be one that is pre-made making it immediately available therefore reducing any unnecessary reduction of the patient's therapy progress. This will allow the patient to be able to conduct the therapy in a functional and safe manner. The orthosis should be fully adjustable to either accommodate or assist in the correction of a compromised joint ROM or to help offset a

certain neuropathy such as foot drop. The orthosis should offer additional design options such as knee and rotational control. The orthosis should also be able to help prevent expensive complications such as pressure ulcers and contractures from developing while patient is at rest. In accordance with providing the patient with a medical device that is pre-made, multi-functional, and adjustable for all phases of their stay it should also account for comfort and be preventative towards other etiologies that may secondarily take place after a stroke. It's important to remember that hospitals are most often provided DRG (Debt Relief Gains) funds to cover the cost of many if not most in-patient hospital stays. Therefore, hospitals have to sometimes pick up the costs associated with orthotics along with other services such as additional physical therapy or wound care treatments. In addition, the costs associated with secondary problems such as pressure ulcerations which can develop anytime during the patient's stay are usually caused because the proper orthosis was not provided for the patient initially. As of October 2008, Medicare has mandated that it will no longer cover hospital errors relative to wound care issues that develop while the patient is staying in the hospital. Thus, based on these facts it is safe to say that hospitals are always looking to reduce their costs and by adopting the philosophy mentioned above it would ensure that would be the case along with not sacrificing the overall care of the patient.

Once a patient is discharged from the hospital, they are either sent to a Skilled Nursing Facility (SNF) or their own home which is usually based on the status of their medical condition, prognosis and naturally their health care plan allowances or coverage. To further justify the cost effectiveness of prescribing and providing an orthosis in the acute stages is that the patient will be discharged with it, thereby maintaining the functional management of their post acute care diagnosis which can be now treated at the SNF or home on an indefinite basis and at no additional cost to the patient or third-party payer. Once the patient's condition has plateaued (not getting any better or worse) is the time a more definitive or custom-made orthosis should be considered if applicable based on their activity level or lifestyle.

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