Stein, M Assignment 1, 10/01/2013

**Musculoskeletal Condition: “Growing Pains”**

**Practice Pattern: 4B**

*Care Coordination*

Impairment: The child (6 years of age) presents with late day or nighttime pain mostly in shin, calves, thigh or popliteal fosssa. Pain is bilateral. 1-3 He was evaluated by his physician and diagnosed as a non-inflammatory pain syndrome, referred to as “growing pains”. He has bilateral pronation, which may be related to his condition. There were no red flag signs noted for other conditions. None of these red flag signs were noted with this child:

* Pain only or mainly in one leg
* Pain located in joints
* Daytime pain
* Prolonged episodes of pain (more than 30 minutes)
* Any joint redness, swelling or stiffness
* Presence of a limp
* Tenderness on palpation, or pain when the limb is moved
* Presence of a rash, fever, weight loss or any other signs of systemic upset

Goal: Reduce the degree of pronation and maintain hind foot alignment through the use of SMO’s, during waking hours to degree pain resulting from “growing pains”.

Intervention: Consult with orthotist, for assessment and measurements, for bilateral SMO’s and consult with parents on fit and wearing schedule. 3,4 (Body structure and Activity and participation)

*Family Related Instructions*:

Impairment: Child is waking periodically at night with complaints of pain.

Goal: Decrease anxiety and fear in child and parent and reduce pain during episodes.

Intervention: Provide information and reassurance of the etiology and course of GP. Instruct in massage therapy to affected area. Instruct in exercise home exercise stretching program.3,5 (Body function)

*Direct Intervention*:

*Activity/Functional limitation*: The child may have low pain threshold and have bone fatigue and may experience increased pain after physical activity at night. 2

Goal: Decrease painful episodes

Intervention: Instruct family in stretching program to quadriceps, hamstrings, and gastro-soleus muscle group to be performed 2 times per day.  2,3,5

Reevaluate compliance of exercise program and follow up the orthotics. (Body Function)

**Neuromuscular Condition: Leigh’s Syndrome**

**Practice Pattern: 5E**

*Care Coordination*:

Impairment: Two-year old child with diagnosis of Leigh’s Syndrome. This is a severe neurological disease with progressive loss of mental and physical abilities.  6 She is non- ambulatory, unable to sit alone, and has poor head control. She has visual impairment but can track some toys and people. She has fluctuating muscle tone and decreased strength in all extremities and her trunk musculature. When in support sitting position, she can reach for a toy and activate a switch.

Goal: Stand in an adaptive stander at least 4-5 times per week for 60 minutes to achieve full weight bearing on lower extremities and enhance bone mineralization. 7,8

Intervention: Contact durable medical equipment vendor and set up appointment to obtain samples of a variety of standers to be tried with child. The parents will decide which they prefer and with consultation with the PT, a stander will be order to this child’s personal use.7,8 (Body Function)

*Family related Instruction*:

Impairment: Due to abnormal muscle tone, decreased range of motion and progressive neurological status, child is at risk for secondary complication of contractures and limitation, which may make ADL difficult for family.

Goal: Maintain ROM in all extremities and spinal alignment.

Intervention. The parents and care providers will be instructed in ROM exercises, positioning for good alignment when on the floor and in adaptive seating equipment, such as stander, adaptive stroller and prone activities. Active assist exercises with manual assistance.9-11(Body Function and Activity and Participation)

*Direct intervention*:

Activity/functional limitation: She is unable to maneuver independently to explore her environment.

Goal: To take 5-6 steps forward in adaptive walker in order to reach a toy.

Intervention: PT will assess a variety of walkers with child and parent, which provide necessary head and trunk support. PT will facilitate weight shift activities and gait training to facilitate forward stepping with using a body support walker. Will also utilized body weight support with treadmill training.12 As increase in ability to advance walker will move to playground activities with peers. (Body Function, Activity and Participation)

**Cardiopulmonary Condition: Myotubular Myopathy**

**Practice Pattern: 4C and 6E**

*Care Coordination*:

Impairment: 18-month-old child with X- linked myotubular myopathy. 13 This myopathy primarily affects muscles used for movement (skeletal) and mostly effects males. Has a GI feeding tube, full time nursing care and requires long-term mechanical ventilation when sleeping. He has severe thoracic-lumbar scoliosis. He is unable to sit independently and has poor head control. He can roll side to side from supine. He does not tolerate prone due to cardio-respiratory status. The doctor has order a TLSO in order to support spinal alignment and compliance from family and child is poor. He has a full time nurse.

Goal: Improve spinal alignment in order to stabilize trunk and curve as long as possible. 1 Increase compliance.

Intervention: Work with orthotist to assure fit of TLSO is good and have him meet with family to discuss fit and management in order to wear for longer durations in his Kid Kart .14 (Body Structure and Activity and Participation)

*Family related instruction***:**

Impairment: Child is unable to maintain head and neck alignment for visual awareness and participation, due to skeletal muscular weakness.

Goal: Wear TSLO while sitting in adaptive stroller during circle time in classroom.

Intervention: Reinstruct nurse and mom on donning TLSO and wearing schedule with increasing time when upright, with monitoring of vital signs and stress, by nurse. 1(Body Function and Structure, Activity and Participation)

*Direct Intervention*:

Impairment: Child is unable to maintain trunk stability for sitting posture in order to develop head control, visual awareness and reaching skills.

Goal: The child will wear TSLO during while sitting in supported sitting or adaptive seating in order to stabilize trunk to increase active ROM in UE against gravity.

Intervention: While wearing TLSO, child will practice sitting balance skills in PT and in classroom with peers, while on the floor and reaching for toys presented side to side, forward and above 90 degrees.1 (Body Function and Activity and Participation)

**Integumentary Condition: Adolescent With Myelodysplasia (T-10)**

**Practice Pattern 5C and 7A**

*Care Coordination*:

Impairment: 11 year- old adolescent with spina bifida, which is independent in wheelchair mobility. He has recently gained weight. He spends the day in his wheelchair and parents report that he has developed superficial skin breakdown on ischial tuberosity. Due to decreased sensation and wheelchair dependent for mobility, he needs re- instruction in pressure relief management program.1

Goal: Decrease pressure reading with pressure mapping in area over body prominence, using pressure- relieving cushion for wheelchair. 15

Intervention: Contact durable medical equipment vendor to discuss alternative seat cushion due to recent weight gain and development of pressure issues.1,16 (Body Function and structure)

*Family related instruction*:

Impairment: Child has limited upper extremities strength due to increased weight gain and poor compliance with wheelchair push up to relieve pressure. Child spends a lot of time in front of computer and video games.1

Goal: Increase strength in upper extremities in order to perform wheelchair push-ups and transfer to other positions for pressure relief.

Intervention: Teach parents and child to use timer for change in positioning, Teach child to do wheelchair push ups and weight transfers while in chair. Discuss with parents and child need for increased active life style (decrease computer and game time).  1,17,18 (Body Function and Activity and Participation)

*Direct intervention*:

Activity/functional limitation: Child is unable to stay in his wheelchair for long periods of time in order to go to school and to participate in peer related activities due to pressure sore.

Goal: Child will be able to complete wheel chair push up on regular basis, transfer to pressure relieving positions and prevent reoccurrence of pressure sore in order to return to regular routine.19-21

Intervention: PT will work with increasing upper body strength in order to lift body weight off of support. Utilizing age appropriate activities such the WiFiT.  22 PT will work with child to develop ability to self -monitor for skin integrity on regular basis. PT will provide community based information on physical fitness and health and wellness. 17,23(Body Function and Activity and Participation)

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