**Lab: SM Selection**

**Case Scenario #1:**

**Patient Name:** Ms. Catherine Poole

**INTAKE & HISTORY**

**Demographic Information**

**Age:** 57-year-old **Gender:** F **Weight:** 101# **Height:** 5’3”

**Referring Medical Diagnosis:** Rheumatic Arthritis **Onset Date:** Age 24

**Medical hx:** joint deformity and instability as a result of RA diagnosed at age 24

* multiple courses of steroids, chronic pain and weakness, multiple MRSA infections to bone resulting in 1 failed left total hip arthroplasty

**Surgical Hx:** failed left THA, hardware removed. POC is to have second L THA in 12 months

**Reason for Referral/Chief Complaint:** She had a rental MWC 18”w x 16” d with elevating leg rests (ELRs) in a visible state of disrepair, providing no functional postural support. She reports that she would like a power wheelchair and does not want a ELR sticking out because she cannot access the commode independently.

**Social Status**: Married, lives with husband of 35 years. Husband recently retired from the music business, home full time. Grown children.

**Patient/Family/Caregiver Goals:**

* “I want to be able to get around my house by myself”
* ” I have a lot of pain and can’t really use the walker because it hurts my shoulders, wrists and hands”

**Environmental Accessibility:** One-story ramped home, standard doorway width of 30”, hardwood flooring throughout except kitchen and bath which is vinyl. Suburban neighborhood with flat and hilly terrain, sidewalks and pavement. Husband provides dependent mobility inside and outside the home.

**General Health Status:** Multiple medical comorbidities, history of MRSA infection, long history of steroid use, fragile skin, history of depression and chronic pain. Sedentary due to multiple medical comorbidities limiting activity and mobility.

**Functional Status/Activity Level:** requires assistance for MRADL – mod assist of one to transfer to and from the wheelchair to the bed, commode, and recliner. She is able to perform upper body hygiene with set up and feeds herself independently. Prior to brief rehab admission, Ms. Poole complete laundry, some cooking and simple meal prep and participated in home management activities. Husband completed all shopping, drives her to multiple medical appointments. She is confined to bed or chair without assistance to rental wheelchair.

**Employment/work status:** disabled and does not work outside the home

**Transportation:** They have a SUV and want to be able to transport the chair. Husband verbalizes strong opinions about plan of care and out of pocket expenses.

**EQUIPMENT ASSESSMENT:**

**Existing Equipment:** She has a rollater walker from previous admission. Unable to use it to negotiate 8 ft to the bathroom. All assistive gait devices including canes, crutches, platform walkers considered or trialed and ruled out. She has a BSC and tub transfer bench but cannot use it now. Her incision is open and draining and is required to have a bed bath.

**Current Seating and Mobility Equipment:** Using rental Drive Medical MWC provide ABC Medical, 3 years ago and has since converted to purchase, funded by Medicare and Supplemental Insurance. It is a Drive Medical Standard MWC 18”w x 16” d with elevating leg rests (ELRs). Seat upholstery is torn and overstretched. Desk length armrests are torn and worn. Wheel locks with no extensions do not safely engage wheels. 8” front casters bent and impeding movement and tracking, one anti tipper is missing. Wheelchair providing no functional postural support. A repair or replacement of current MWC will not adequately meet her mobility and positioning needs.

**FUNCTIONAL ASSESSMENT:**

**ADL/IADL Status:** Dependent with ADL/IADL for setup with equipment and/or assistance. She uses a reacher, tub transfer bench with handheld shower, transfer belt, build up for utensils and personal hygiene equipment, 3 in 1 drop arm elevated commode.

**Mobility Status:** Bed mobility- unable to roll to eft due to painful hip. Ind. supine to sitting at side of bed

**Walking/Ambulation Status:** Essentially non-ambulatory given NWB LLE restrictions. Pt unable to bear weight through BUE. She used a platform walker in the Rehab Center but refused to accept one.

**Wheelchair Mobility/Propulsion Status:** dependent mobility in rental wheelchair – cannot access the wheelsfor adequate independent propulsion

**Endurance:** limited - deconditioned

**SCREENING OF BODY FUNCTIONS:**

**Cardiovascular/pulmonary/circulatory status:** intact

**GI system review:** intact

**Cognitive status:** alert, oriented x 4

**Bowel/bladder functions:** intact

**Skin:** intact

**Communication:** verbal, appropriate

**PHYSICAL EXAMINATION & TEST MEASURES:**

**Sensation:** intact

**Pain:** 7/10 LLE – her hip and 5/10 BUE when using the walker

**Skin Integrity:**

**Gait:** non-ambulatory – see previous

**Strength/ROM**: BUE – 4-/5 for shoulders, wrists and hands – resistive testing causes pain. She can move BUE through range of motion to accomplish self-care. Grip strength adequate for ADLs

RLE – hip, knee ankle – strength 3+ - 4-/5 – hip knee and ankle –

LLE – hip flexion to 75 degree – given painful incision 2/5 hip flexion strength, 3/5 quads, 4/5 dorsiflexion

**MEASUREMENTS:**

Hip Width: 14

Chest Width: 11.5

Shoulder Width: 12.5

Seat Depth: 18

Knee to Heel: 15.5

Seat to Elbow: 6.5

Seat to Axilla: 12.5

Seat to Shoulder: 18

Seat to Top of Head: 28

***LAB ASSIGNMENT: Complete the following portion for this Case Scenario***

**WHEELCHAIR ASSESSMENT: Describe technology-specific trial, simulation, and specification.**

**Technology trial/simulation:** Equipment features trialed and results

**Measurements:** Body measurements (e.g., hip width, sacrum to popliteal fossa, lower leg length, shoulder height, elbow height, etc.) **PROVIDED**

**Person/technology match:** Discuss benefits/tradeoffs of equipment features with patient/family and identify technology features needed to attain identified goals

***INSTRUCTOR KEY TO PART 1 ASSIGNMENT – SAMPLE ANSWER OR COMPARABLE***

***LAB ASSIGNMENT PART 1: Complete the following portion for this Case Scenario***

**WHEELCHAIR ASSESSMENT:** *Describe technology-specific trial, simulation, and specification.*

**Technology trial/simulation:** Equipment feature(s), rationale for selecting trial.

* Trialed Standard PWC, mid-wheel drive, right sided joystick, one piece flip up foot platform. Patient reports she must learn to bend her knee and will do so if she gets this power wheelchair.
* Patient and husband indicated they need to discuss options. Had not considered a PWC. This will have a big impact on transportation etc. Want to also discuss MWC options.
* Trialed an ultra-lightweight folding hemi height manual wheelchair (e.g. Ki Mobility Catalyst 5, Quickie 2) to allow self-propulsion with BUE and RLE
* Discussed seat cushions, materials, and trialed multiple general use cushions (Sunrise Basic, Comfort company curve)

SAMPLE ANSWER

Results: (Sample documentation of trial results).

Patient trialed a Standard MWD PWC. She was able to independently transfer in/out of the PWC without difficulty. She demonstrated her ability to turn on/off the controller and operate the right sided joystick. She maneuvered the PWC out of the clinic through the doorway, turned 90 degrees and drove down the busy hallway appropriately navigating people and obstacles. She was safe operating the PWC and had no difficulty doing so.

Next we trialed an ultra lightweight hemi height MWC. The patient was able to independently transfer in/out of the MWC without difficulty even with the low seat to floor height. She was able to self propel the MWC across the clinic, out the doorway, turn 90 degrees and move forward down the hallway with BUE and RLE without difficulty.

After discussion the family decided they were not ready to pursue PWC given environmental obstacles and opted for the MWC which we specified.

**Measurements:** Body measurements (provided above)

**Person/technology match:** Discuss benefits/tradeoffs of equipment features with patient/family and identify technology features needed to attain identified goals

We discussed at length the pros/cons of manual vs power mobility and the difficulties making the switch from MWC to PWC depending on funding options. The family decided on the MWC and the following system was specified.

***Consider and discuss with your group the following for this Case Scenario***

**EVALUTION & PLAN OF CARE:** *Describe goals, treatment procedures/interventions, recommended equipment, feature specification and clinical rationale, duration/frequency of services required to attain goals, anticipated discharge plan.*

**Diagnosis related to positioning and/or mobility limitation:** Factors that are influencing the individual’s condition and/or level of functioning in his or her environment. Diagnosis code must correspond to payer coverage policy. Review payer policy for eligibility criteria.

**Problem list:** Identification of problems pertinent to patient management/clinical services and necessary/recommended MAE

**Goals for treatment intervention:** Stated in measurable terms with expected completion date, appropriate for patient and diagnosis

**Goals for MAE intervention (Expected Outcome):** A realistic evaluation of the patient’s functional potential with the use of the recommended equipment, stated in measurable terms related to functional activity

**Plan for interventions and/or additional test and measures:** Pressure mapping, equipment trial/simulation, AT assessment, custom molding, fitting, manual wheelchair skills training, power mobility training, patient/family teaching, frequency/duration of visits, discharge plan/discharge summary

**Equipment Recommendation:** Details of recommended equipment features and clinical rationale for items requested

**Current Equipment:** Describe current primary mobility device and seating (age/manufacturer/model), pertinent features, hrs/day used, funding source, reason for new equipment (what worked/didn’t work)

**Patient/Caregiver Goals:** In their words

***STUDENT DOCUMENTATION ASSIGNMENT: USE PLANNING WORKSHEET- DEFENSIBLE DOCUMENTATION PROJECT: PART 2A & B TO DOCUMENT THE FOLLOWING:***

**Problem list:** Identification of problems pertinent to patient management/clinical services and necessary/recommended MAE

**Goals for MAE intervention (Expected Outcome):** A realistic evaluation of the patient’s functional potential with the use of the recommended equipment, stated in measurable terms related to functional activity

**Product Feature Recommendation:** Details of recommended equipment features and clinical justification/rationale for items requested

|  |  |  |  |
| --- | --- | --- | --- |
| **Pt Problem** | **Goal** | **Product Feature** | **Justification** |
| **ADD MORE ROWS AS NEEDED** |  |  |  |

1. **Describe wheelchair configuration needed to maximize function (e.g. specific seat width/depth, back height, seat to floor height, axle position, seat to back angle, tilt, power assist, etc.)**
2. **Describe features of seat / back support and postural supports needed for functional mobility**
3. **Explain why the lower level MWC or PWC cannot be configured and/or will not meet patient’s needs.**
4. **Describe how recommended MWC or PWC will improve patient’s ability to participate in ADLs and IADLs.**

***INSTRUCTOR KEY TO DOCUMENTATION ASSIGNMENT – USE RUBRIC FOR NARRATIVE SCORE & SAMPLE ANSWER OR COMPARABLE FOR QUESTIONS***

1. **Describe wheelchair configuration needed to maximize function (e.g. specific seat width/depth, back height, seat to floor height, axle position, seat to back angle, tilt, power assist, etc.)**
* Quickie 2, folding frame, candy purple, 15”w x 15” d, hemi height with lowest possible seat to floor height 14”. She plans to wear footwear to improve contact for foot propulsion. ]
* 22” wheels – plastic coated hand rims,
* 4” x 1.5” casters
* 70 degree swing away footrests with composite footplates
* Flip back desk length padded arm rests
1. **Describe features of seat / back support and postural supports needed for functional mobility**
* Adjustable tension back upholstery – set at 12” h
* 2” Comfort company curve cushion 15” w, 15” d with solid insert
1. **Explain why the lower level MWC or PWC cannot be configured and/or will not meet patient’s needs.**

We discussed at length the pros/cons of manual vs power mobility and the difficulties making the switch from MWC to PWC depending on funding options. The family decided they were not ready to move from a MWC to a PWC given environmental obstacles e.g. home accessibility and transportation. They understand funding may be an issue if they change their minds without a change in medical condition. They opted for the MWC specified above.

1. **Describe how recommended MWC or PWC will improve patient’s ability to participate in ADLs and IADLs.**

The prescribed hemi height MWC will enable the patient to self propel with BUE and RLE functional household distances to complete ADLs and IADLs in their accessible home environment. The husband is able to fold the MWC to load it and stow it in the trunk of their vehicle.