***Summary:*** *The non-clinical participant visits involves giving participant information sheet (PIS) to suitable candidates, expand on the information in the PIS and seeking consent. These could be done during patients’ routine visit.*

|  |  |  |
| --- | --- | --- |
| **Date:** | **Time:** | **Location:** |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Delegate (s)** | **Location** | **Other comments** |
|  |  |  |

**Task 1**: Explaining the project and giving PIS to suitable candidate (~30 min)

**Task 2**: Seeking consent (~10 min)

***Summary:*** *The first visit will involve manual muscle testing, biomechanical measurements including arm muscle response to electrical stimulations. In the first visit, they will also have the COPM outcome measure explained to them and be encouraged to start thinking about their functional goals.*

**Required Resources:**

1. A physiotherapist for palpating and identifying bony landmarks
2. Tape measure
3. Ruler
4. A marker for marking bony landmarks
5. A calliper (large size to measure across IJ and C7)
6. A goniometer to measure passive ROM
7. A hand-held dynamometer
8. A grip-strength
9. A surface FES to identify which muscle can be activated
10. A copy of COPM printed out for participant to take home and think about.

*1 of 5. Scale/Ruler/ tape measure/ calliper*

What position are these measurements taken? Take notes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **✓** | **No.** | **Parameter** | **Values** | **Notes** |
|  |  | Mass of participant (kg) |  |  |
|  |  | Height of the participant (cm) |  |  |
|  |  | IJ to PX (scaling thorax): |  |  |
|  |  | IJ to C7 (scaling thorax) |  | use calliper |
|  |  | IJ to AC (scaling thorax) |  |  |
|  |  | C7 to T8 (scaling thorax) \* |  |  |
|  |  | PX to C7 (scaling thorax) \* |  |  |
|  |  | EpL to EpM (scaling humerus) |  |  |
|  |  | Gu to mid EpL-EpM (scaling humerus) |  |  |
|  |  | RS to US (scaling ulna) |  |  |
|  |  | Mid RS-US to mid EpL-EpM (scaling ulna) |  |  |
|  |  | AA to AC (scaling scapula) |  | use calliper |
|  |  | AI to TS (scaling scapula) |  |  |
|  |  | TS to AA (scaling scapula) |  |  |
|  |  | SC to AC (scaling clavicula) |  |  |
|  |  | IJ to AC (scaling clavicula) |  |  |

Other notes: \* might not be possible

-----------------------------------END OF 1 of 5. Scale/Ruler/ tape measure/ calliper --------------------------------------

*2 of 5. Goniometer (Passive ROM)*

**Shoulder**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Passive ROM** | **Range** | **Participant’s ROM (**°**)** | **Notes** |
|  |  | **Flexion** | 0° – 110° or 180° w/pectoral gridle |  |  |
|  |  | **Extension** | 0° – 70° or 90° w/pectoral gridle |  |  |
|  |  | **Abduction** | 0° – 120° or 180° w/pectoral gridle |  |  |
|  |  | **Adduction** | 0° – 35° |  |  |
|  |  | **Medial Rotation** | 0° – 90° |  |  |
|  |  | **Lateral Rotation** | 0° – 80° |  |  |

Other notes:

**Elbow**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Passive ROM** | **Range** | **Participant’s ROM (**°**)** | **Notes** |
|  |  | **Flexion** | 0° – 160° or 145° for active ROM |  |  |
|  |  | **Extension** | 0° |  |  |

Other notes:

**Wrist**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Passive ROM** | **Range** | **Participant’s ROM (**°**)** | **Notes** |
|  |  | **Flexion** | 0° – 85° |  |  |
|  |  | **Extension** | 0° – 85° |  |  |
|  |  | **Abduction (radial deviation)** | 0° – 15° |  |  |
|  |  | **Adduction (ulnar deviation)** | 0° – 45° |  |  |
|  |  | **Pronation** | 0° – 85° |  |  |
|  |  | **Supination** | 0° – 85° |  |  |

Other notes:

------------------------------END OF 2 of 5. Goniometer ------------------------------

*3 of 5. Dynamometer/ Grip Strength*

***Note****: In order to eliminate gravity when taking measurements, an anti-gravity arm support needs to be used if possible.*

**Shoulder**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Active ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |
|  |  | **Abduction** |  |  |  |
|  |  | **Adduction** |  |  |  |
|  |  | **Medial Rotation** |  |  |  |
|  |  | **Lateral Rotation** |  |  |  |

Other notes:

**Elbow**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Active ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |

Other notes:

**Wrist**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **Active ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |

Other notes:

**Fingers/hand**

1. Grip strength:

--------------------------------END OF 3 of 5. Dynamometer/Grip strength----------------------------

*4 of 5. Stimulator and Dynamometer*

**Shoulder**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **✓** | **No.** |  | **Flexion** | **Extension** | **Abduction** | **Adduction** | **Medial Rotation** | **Lateral Rotation** |
|  |  | **Paralysed Muscles** |  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |
|  |  | **Abduction** |  |  |  |
|  |  | **Adduction** |  |  |  |
|  |  | **Medial Rotation** |  |  |  |
|  |  | **Lateral Rotation** |  |  |  |

Other notes:

**Elbow**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **✓** | **No.** |  | **Flexion** | **Extension** |
|  |  | **Paralysed Muscles** |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |

Other notes:

**Wrist**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **✓** | **No.** |  | **Pronation** | **Supination** | **Flexion** | **Extension** | **Abduction (radial deviation)** | **Adduction (ulnar deviation)** |
|  |  | **Paralysed Muscles** |  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **✓** | **No.** | **ROM** | **Dynamometer Position (mm)** | **Participant’s Force (N)** | **Notes** |
|  |  | **Flexion** |  |  |  |
|  |  | **Extension** |  |  |  |

Other notes:

1. Grip strength:

--------------------------------END OF 4 of 5. Stimulator and Dynamometer ------------------------------

*5 of 5. COPM outcome measure*

1. Explaining COPM outcome measure

--------------------------------END OF 5 of 5. COPM outcome measure ---------------------------------