Supplementary File II: Hammond A, Prior Y Compression gloves for patients with hand arthritis (C-GLOVES): a feasibility study. Hand Therapy Accepted 16/12/2020

University of Salford MANCHESTER

C-GLOVES: An evaluation of the effectiveness of compression gloves in arthritis: a feasibility study.

Therapist Compression Glove Hand Assessment & Treatment Manual

This manual and contents should be referenced as:

Jones V, Hammond A, Prior Y (2013). C Gloves: Compression Glove Hand Assessment and Glove Treatment Manual v2. University of Salford: UK. http://usir.salford.ac.uk/id/eprint/32094.

The Adapted Grip Ability Test (GAT) was developed by Alison Hammond, Viv Jones and Yeliz Prior from the original Grip Ability Test, developed by: Dellhag B, Bjelle A (1995). A Grip Ability Test for use in Rheumatology Practice. The Journal of Rheumatology 22:1559-1565

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C-Gloves study therapist manual

Table of Contents:

Summary of actions:

1. At 0 weeks, explain study, receive consent, complete hand assessment and fit gloves
2. At 4 weeks, (if not already done so, receive consent) repeat hand assessment and review glove fit/ any problems.
3. Send photocopy or scan of completed assessment form to University of Salford
4. NO patient identification details to be sent – ONLY use PIN.

1. Agreed North-West Rheumatology OT criteria for provision of compression gloves as part of usual care.

Patients who:

- *For night use*: are experiencing nocturnal pain, stiffness and swelling which disturbs sleep; and/or moderate to severe early morning stiffness in the hands which is not readily eased by using warm water or exercise; and/or moderate to severe hand swelling which affects hand function during the day
- *For day use*: are experiencing moderate to severe pain, stiffness and /or swelling which disrupts hand function during the day. Gloves are provided when patients' primary problems are: proximal interphalangeal (PIP) or metacarpophalangeal (MCP) joint involvement, rather than solely: wrist involvement and/or if a wrist splint would unduly restrict the patient's ability to perform tasks e.g. at home or work, but some support is required; or thumb involvement, as a thumb splint would be provided.

The OT makes the clinical judgement that the patient's hand condition would benefit from compression glove use. Patients may wear gloves both day and night.

Exclusion criteria for eligibility are patients with contraindications for glove wear:

- **severe** Raynaud's disease or **severe** neurological or circulatory disturbances in the hand (e.g. neuropathy, lymphoedema), because of the potential risk that compression gloves could exacerbate the condition.
- any contraindication (e.g. eczema, infections, broken skin) meaning glove wear could potentially pose an infection risk;
- hand deformities which would prevent glove fitting;
- difficulty understanding how to wear the compression gloves correctly or unable to don and doff gloves (unless help is available at home for the patient)

The OT makes the clinical judgment that glove provision is inappropriate for the patient.

There are additional **study** entry criteria.

Please complete the **study eligibility checklist** in the Hand Assessment form, before assessing and providing gloves.

2. Procedures North-West Rheumatology OT Best Practice Treatment Protocol:

1. Explain the purpose of compression gloves to the patient, i.e. to help reduce pain, stiffness, swelling at night/during the day (as applicable to the patient's needs) and to improve hand function.
2. Assess the person's capacity to give consent for glove provision as part of usual care. Record verbal consent to provision of gloves in the patient's OT notes.
3. Check the person's eligibility for glove provision (see North-West Rheumatology OT glove eligibility and contra-indication criteria). If the patient has mild Raynaud's disease, provide additional instructions to regularly check the circulation in the hands and remove gloves.
4. Complete the best practice compression glove hand assessment protocol. See Section 3 in this Manual.
5. Apply alcohol gel to your own and patient's hands for infection control purposes prior to sizing for, trying out and fitting gloves. Leave the gel to dry for 1-2 minutes.
6. To determine the correct glove size:
    a. Measure circumferentially around the 2nd to 4th MCPs with the MCPs in extension, using a Jobskin (paper) measuring tape. Use one tape per patient for hygiene reasons (use the same tape for hand assessment).
    b. Refer to manufacturers' glove packaging for glove sizing (small, medium, large)
    c. Use clinical judgement re correct fit
    d. Seek patient feedback re comfort and compression at time of fitting.

7. Fit an Isotoner three-quarter length finger compression glove.
8. Assist the patient with donning the glove over their fingers, and then instruct on how to continue to pull these over the hand/s.

Emphasise these should be a snug (not tight) fit, as per diagram (left).

Check for the patient's response about the fit and comfort of the gloves.

Manually test for the appropriate fit by ensuring there is slight "give" in the material

over the hand and fingers, to allow for adequate expansion should the patient experience any increase in hand swelling (e.g. due to a flare of the RA). To do this, simultaneously pinch the glove seams either side of a) the MCP joints and then b) the 2nd - 5th PIP joints.

- Re-size the glove if necessary and perform the fit procedure again.

9. Check the patient can doff and re-don the glove independently. The patient continues to wear the glove(s) during the remainder of the appointment to check for any short-term problems arising and the patient's response to wear.

10. Give the North-West Rheumatology OT glove instruction sheet to the patient (see Appendix 1). Explain the wear regimen you recommend, precautions and glove care; and the OT department's replacement glove provision policy.

11. **Review appointment**: conducted at approximately 4 weeks, at a similar time of day to the baseline assessment (if possible).
    - Re-assess using the agreed assessment protocol
    - Ask the patient for his/her opinion about the fit of the gloves and any problems noted (e.g. red areas of skin, numbness or tingling)
    - If the patient reports problems, take appropriate clinical action of either: reinforcing precautions and recommending regular glove removal or stopping the patient wearing gloves
    - Record frequency of glove wear and any benefits obtained
    - Teach a hand exercise programme to the patient (if not already received hand exercises)
    - Inform the patient to contact the OT department if s/he experiences any problems arising from wearing the gloves at any stage.

3. **North-West Rheumatology OT best practice compression glove hand assessment protocol**.

At the initial appointment:

1. Check eligibility criteria
2. Demographic information:
    - date of birth, gender, time since onset of symptoms, time since diagnosis, diagnosis (as recorded on OT referral form or letter),
    - check boxes to identify the relevant condition group (i.e. UIA; early RA; RA; hand OA)
    - whether taking disease modifying medication, biologics and/or oral steroids
    - for the UIA/early RA group only: in the last 4 weeks if had an intramuscular or intra-articular (in the hands/wrists) steroid injection and/or started on oral steroids or a new anti-inflammatory drug. *[NB if an RA or Hand OA group patient has had an injection or started on oral steroids in the last 4 weeks, they are excluded].*
    - for the UIA/early RA and RA group: started on DMARDs in the last 3 months *[NB if an RA group patient started DMARDS in the last 12 weeks, they are excluded].*
    - hand dominance.
3. Presence of deformities (checklist for right/left hands): wrist radial deviation; MCP ulnar deviation; finger swan-neck; boutonnière deformity; mallet finger; Z-thumb.
4. Concurrent use of any other splints: (checklist for right and left hands) resting, wrist, finger or thumb splints
5. Glove provision: right/left or both; wearing regimen recommended (day; night; day and night).

Collect the following outcome measures and data at 0 and approximately 4 weeks:

- **Use the standardised C-GLOVES Assessment Kit**

1. Date and start time of assessment
2. Pain: three 10-point numeric rating scales of hand pain experienced in each hand the glove(s) is provided for:
    a) during the day at rest
    b) during the day whilst doing moderate hand activities, e.g. work, cooking
    c) at night when resting.

    The end points are no pain and severe pain.

3. Stiffness:
    a) 10-point numeric rating scale of hand stiffness experienced in each hand the glove(s) is provided for. The end points are no hand stiffness and severe hand stiffness
    b) patient self-reported duration of morning stiffness affecting the hands (hours/minutes)
4. Self-reported hand condition severity: a five-point rating scale of very severe/ severe/ moderate/ good/ very good.
5. Swelling: using Jobskin paper tape measure:
    a) wrist circumference
    b) MCP circumference
    c) 2nd-4th PIP joint circumference
6. Composite finger flexion: range of movement in the 2nd to 4th fingers measured using the 15 cms. ruler
7. Hand function:
    - Grip Ability Test, taking approximately 3 minutes (objective measure: Dellhag and Bjelle, 1995).
    - The Measure of Activity Performance of the Hand (self-report measure: Paulsen et al, 2010).
    - Grip strength – using a Jamar dynamometer, if your department has one available.

8. **4-week review appointment**:

Identify and record any changes since the last appointment:

    a) any changes in medication or any hand/wrist intra-articular injections
    b) any other upper limb occupational therapy or physiotherapy treatment received (and what this was).
    c) lifestyle or health factors that might affect hand pain, swelling, movement or function

Repeat hand assessment measures 1 to 7

    a) Ask the patient to about his/her glove use: record any problems experienced whilst wearing or after wearing the gloves; frequency of glove wear per week; any effects noted from wearing the gloves; reasons for discontinuance (if applicable); any benefits noted; and what the most important benefit for them was (if any).

4. C-GLOVES Hand Assessment Instructions

a) Pain and stiffness self-rating scales instructions

Show the patient the scales. If you are providing ONE glove only, **give** them either the Right- or Left-Hand scales to complete as appropriate. If you are providing gloves for BOTH hands, ask the participant to complete both Right- and Left-hand scales.

Say: "*I will ask* w*hich number between 0 and 10 best matches the pain and stiffness you have been feeling in your hand/s* ***over the last day****. I will ask you about the RIGHT/ LEFT/ BOTH (as applicable) hands."*

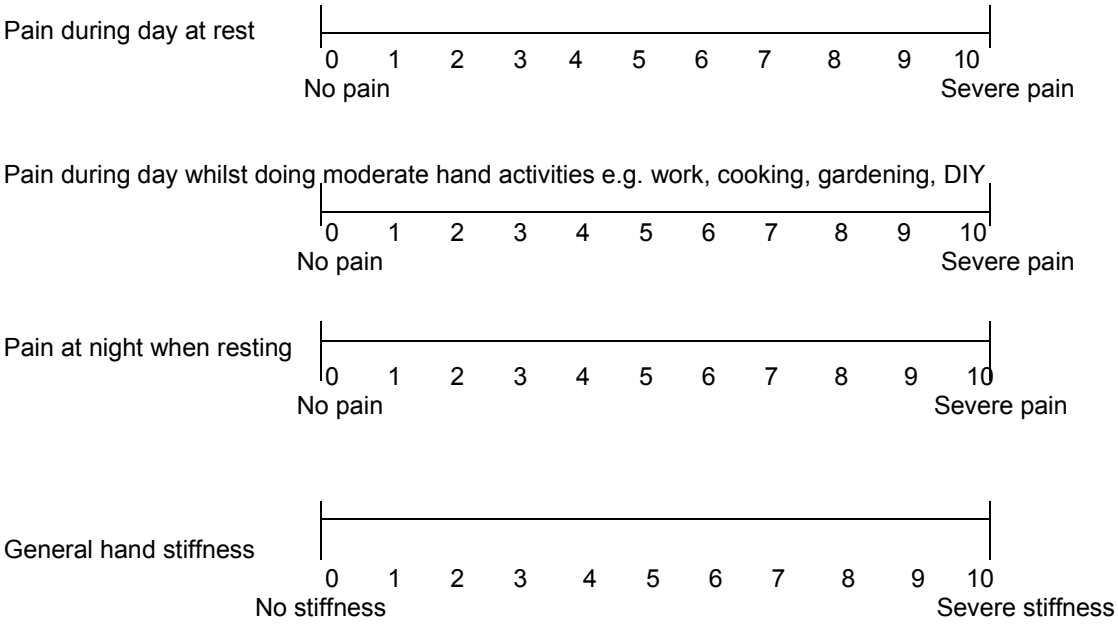
Pain during the day:
"If 0 means no pain and 10 means severe pain, which number do you feel best matches your pain during the daytime when at rest?" (Circle the number)

Pain during the day whilst doing moderate hand activities e.g. cooking, gardening, DIY:
"Which number do you feel best matches your pain during the daytime, whilst doing moderate hand activities e.g. work, cooking, gardening, DIY?"
(Circle the number).

Pain at night when resting:
"Which number do you feel best matches your pain at night-time when resting?"
(Circle the number)

Stiffness:
"If 0 means no stiffness and 10 means severe stiffness, which number do you feel best matches the general level of stiffness in your hand?"
(Circle the number)

RIGHT HAND: "On a scale of 0 to 10, over the last day, how do the following affect you? Please <u>circle</u> the number":



Repeat for Left Hand

Duration of early morning stiffness:
Ask the patient and record in hours / minutes. (This relates to one or both hands).

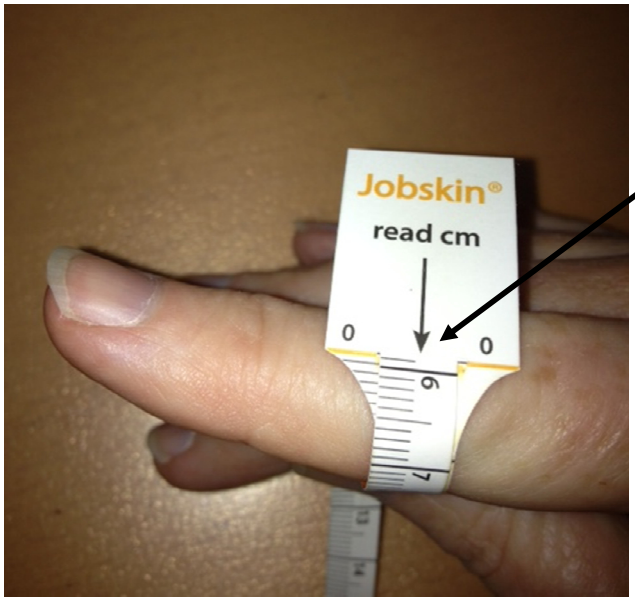
Patient-reported hand condition severity:–
"Which of these words best describes how you feel your hand condition is?"
(Tick the relevant box).

b) <u>Swelling</u>

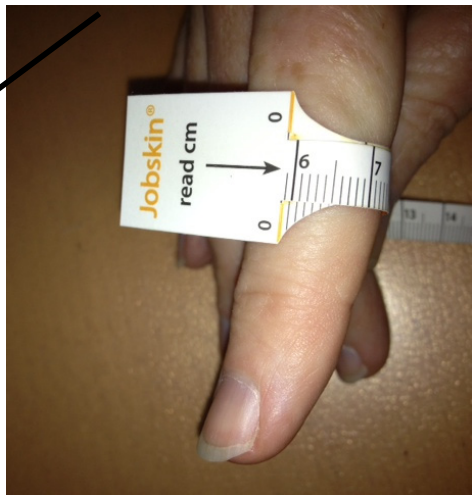
- Assess the hand for which you fitted the glove. If you supplied two gloves, assess both hands

<u>Jobskin® tape measures</u>

- Use one per patient then dispose of the paper tape at the end of the assessment battery.
- Feed the Jobskin® (paper) tape measure through the slot by the arrow, with the numbered side facing outwards.
- Pull the tape until it fits **snugly but not too tightly** – stop at the natural 'end point' where the tape is fully in contact with the skin but without applying any further pressure. Ask the patient if s/he feels undue pressure – ease off if so until the patient says it is snug.
- Read the measurement <u>without lifting the flap</u>
- Take the reading **twice** to check accuracy. Ensure you record the CORRECT measure. *(Lift the flap afterwards to check you have the right cm number if necessary).*
- The commonest error made is to recording the incorrect whole cm. number (see example below)



The CORRECT figure is 5.9cm - **NOT** 6.1cm



Circumferential measurement of the wrist:

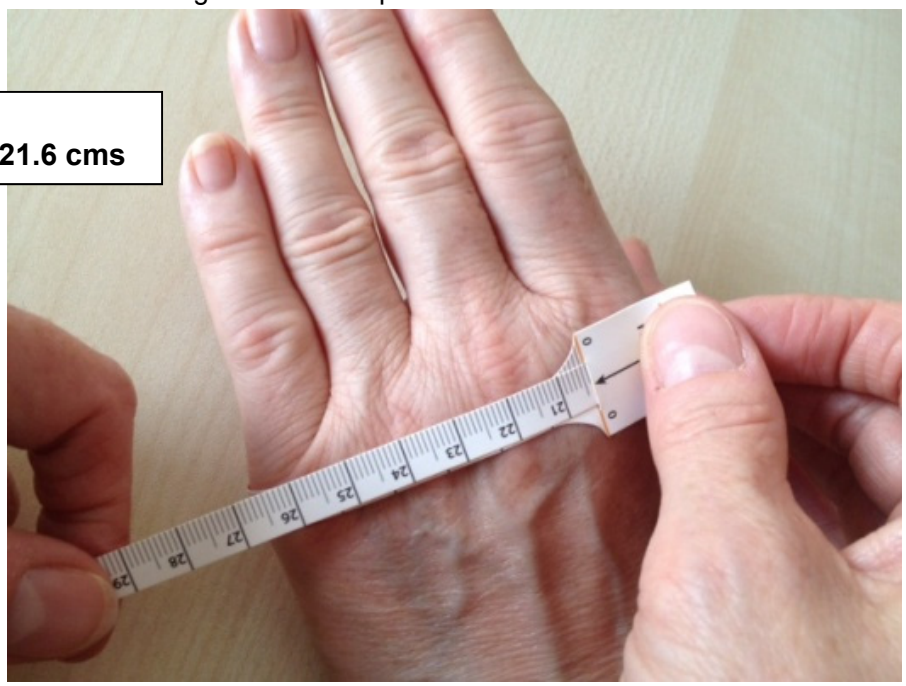
Put the tape over the patient's hand.
Pull the tape so that it fits snugly but not too tightly around the wrist, as close to the distal wrist crease as possible. Read the figure next to the arrow head.

Circumferential measurement of the MCP joints (index to little)

Ask the patient to extend the fingers and MCP joints. Pull the tape so that it fits snugly but not too tightly across the MCP joints and read the figure next to the arrow head on the tape.

Take the reading at the widest point of the MCPs

Note:
20.4 cms - NOT 21.6 cms

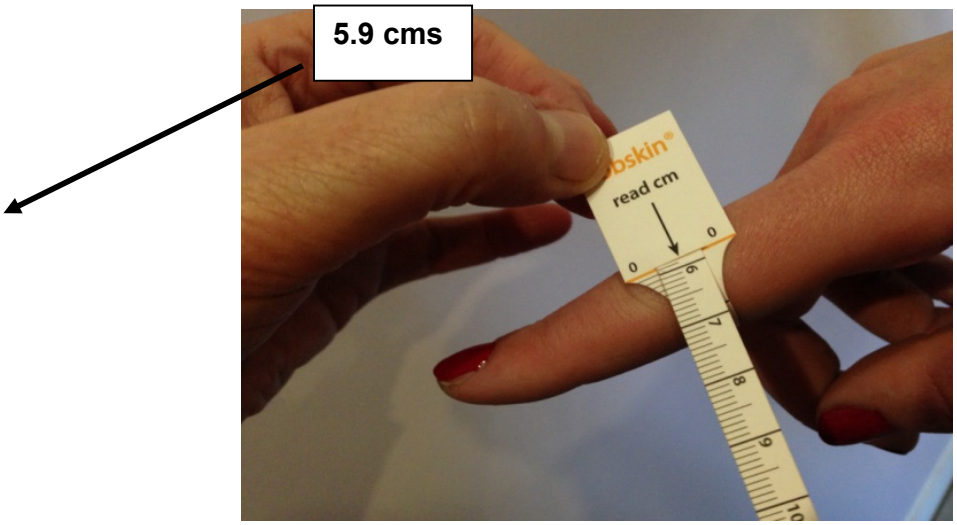


PIP joint measurements instructions

Ask the patient to extend his/her finger.

Place the tape around the widest part of the index PIP joint and pull until it fits snugly but not too tightly around the joint. Read the measurement where the arrow meets the tape

Repeat for the middle, ring and little finger.



c) Combined Metacarpophalangeal and Proximal Interphalangeal Joint Flexion measurement instructions

Equipment: Metal 15cm ruler (starting at 0cm: bezelled end points to prevent snagging skin).

Position: The hand is positioned palm up with the thumb relaxed. Rest the hand on the table. If the patient cannot supinate, use the most comfortable position for him/her.

Measurement: Mark a line on the patient's distal wrist crease (i.e. the crease immediately proximal to the hypothenar/ thenar eminences), immediately over the tendon of palmaris longus. Mark a vertical mid-point where the line crosses palmaris longus. About 10% of the population do not have this tendon. In this case visually estimate the mid-point of the wrist on your line and mark it vertically. On re-assessment (of course) this mark will have disappeared. As you will need to identify this point again, take care to use the landmarks identified above.

Identifying the landmarks:

Palmaris longus tendon

Mark at intersection of palmaris longus and distal wrist crease

Distal part of the nail fold: - essentially this means the junction where the nail is no longer joined to the skin at the side of the finger (where the white part of the nail starts). We are using the lateral (little finger) side of each finger.

How to measure:

"*Bend each finger in turn as far as you can towards this mark on your wrist (point to mark).*"

Ask the patient to bring each finger in turn as far as s/he can towards the mark on the wrist crease.

Place the 0cms edge/ corner of the ruler at the centre of the mark on the wrist. Do not dig the ruler in – just place it gently.

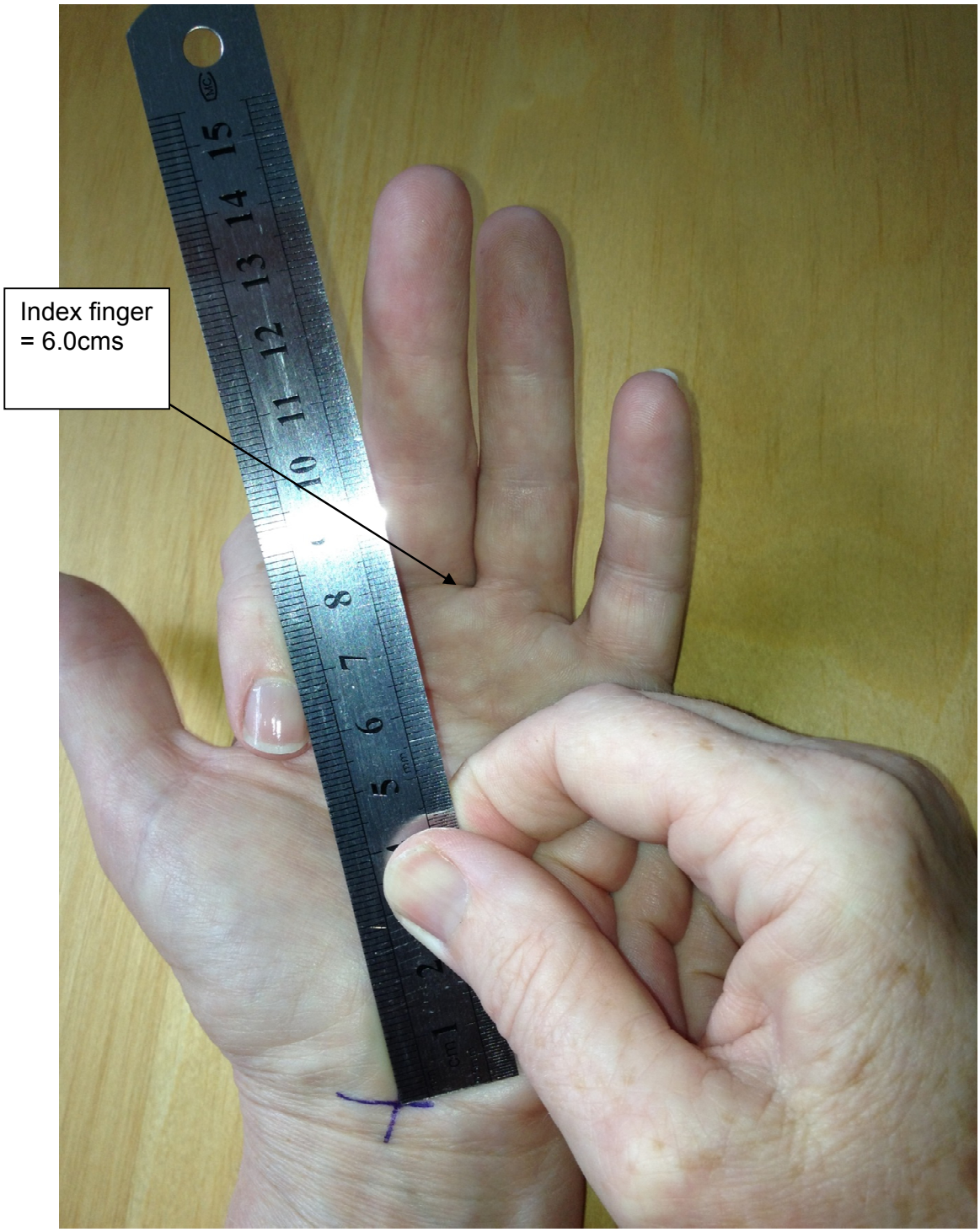
Measure the distance from the mark on the wrist to the distal edge of the nail fold **(do not measure to the end of the nail because nails grow!)**

Record in centimetres and millimetres.

See photos on following pages for examples.

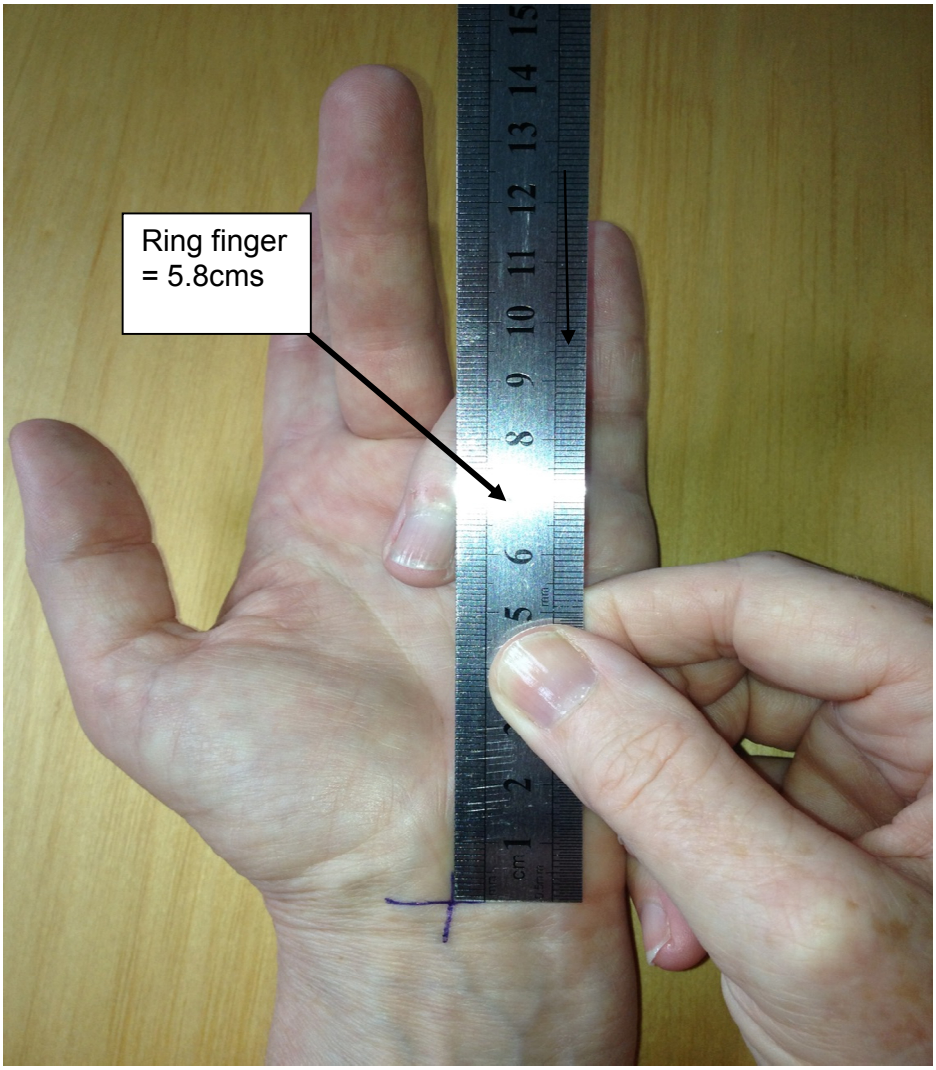
NB Allow the other fingers to flex during measurement to ensure maximum finger flexion can be achieved. The photos show fingers in extension in order to show ruler positioning more clearly.

Example photos


Index finger
= 6.0cms

0cms edge of ruler in centre of mark on distal wrist crease.

Read where distal edge of nail fold contacts ruler


Ring finger
= 5.8cms

d) <u>Grip Strength (optional; if you have a dynamometer)</u>

Equipment: <u>Jamar hydraulic hand dynamometer</u>

Position: Ask the patient to sit on an armless chair, with the hips and knees at **right** angles. S/he should sit back in the chair so that the back is supported; shoulders comfortably relaxed; elbow tucked into the side of the body and at 90 degrees; wrist in extension. The elbow and forearm must not be supported.

Set the Jamar handle at **Position 2** for all participants. Keep it at Position 2 throughout. Sit opposite the patient as you perform the measurements. If the participant finds the dynamometer heavy to hold, **lightly** support the dynamometer at the bottom and at the readout dial to hold its weight during testing and prevent dropping.

Each hand being tested must be tested **THREE** times. Ensure a 30 second rest between tests. During the rest, check the patient relaxes the shoulder and arm and rests their hand on their thigh.

"*To test your grip, I want you to squeeze the handle as hard as you can. The handle will not move. Keep your elbow in at your side and at right angles. Ready? And squeeze as hard as you can… Good and relax."*

Remove the dynamometer and record Test 1 result on the form. **Reset the dial to 0.**

If testing both hands, test the other hand now, whilst the first relaxes.

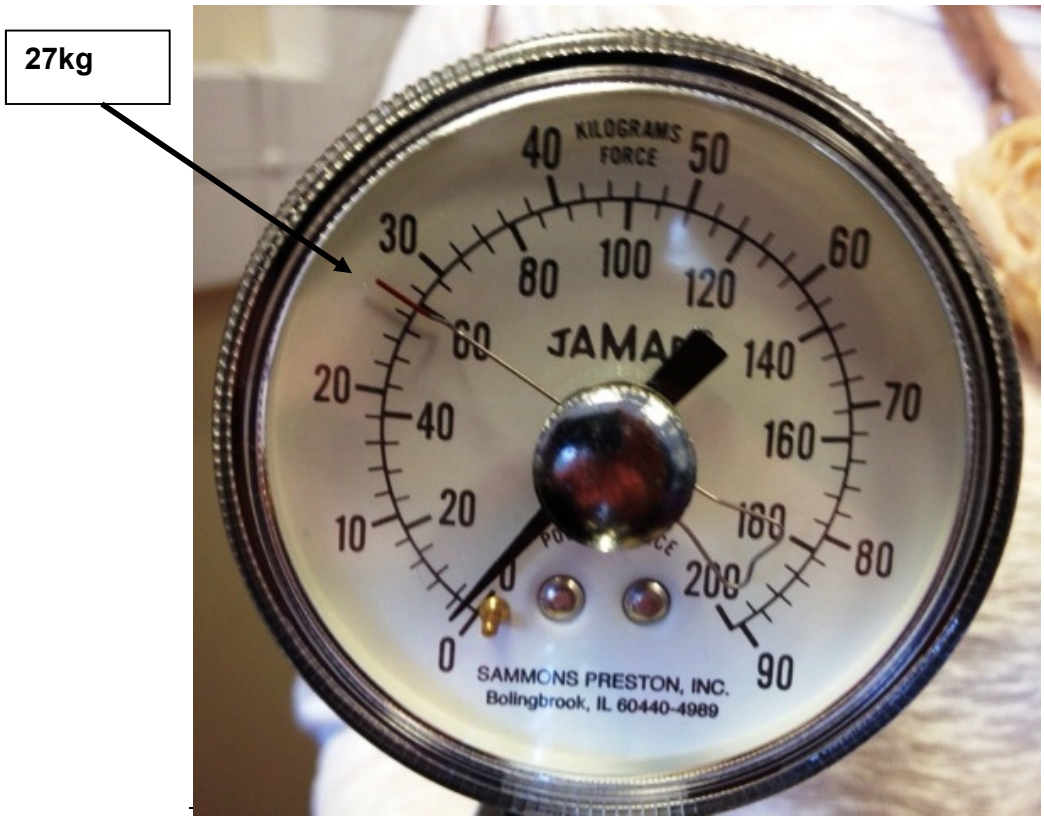
"And we'll do that with the other hand. Elbow tucked in and at right angles. Squeeze as hard as you can…Good and relax."

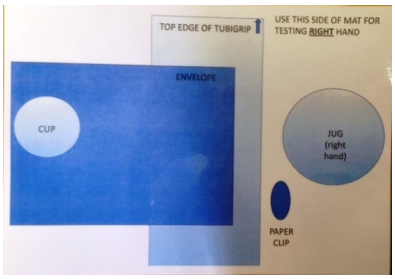
Repeat x 3.

If the patient is unable to squeeze the dynamometer – record "Patient unable to perform grip test"

Score: Record in **<u>kilograms (outerdial), not pounds</u>** (inner dial).

Note: the dial shows 2kg increments. Check you record in 1kg increments (i.e. if needle is half-way between marks 26 and 28, record as 27kg.





e) Hand Function

Adapted Grip Ability Test instructions

Equipment:

- Laminated positioning sheet (GAT MAT*)
- Stopwatch
- Tubigrip: a 25cm length of **size D** (7.5cm wide) for women; 25cm length of **size F** (10cm wide) for men. Use a new piece per patient
- Envelope (C6 size: 162 wide x 114mm high) and medium paper clip (32mm long x 7mm wide)
- I litre jug and cup: the 1 litre jug must have a total capacity of approx. 1.1 to 1.2 litres (to ensure there is no spillage when patients lift the jug, as this will slow test time). The cup must be marked at 2dl capacity (using an indelible pen).

Use the equipment provided in the C-GLOVES Assessment Box.

Using the Tesco One Body Stopwatch

- Take care when recording times, e.g. **3.27** seconds will appear as 00:0327 on the stopwatch. Record what you see on the dial.

√ i.e. 3.27 secs will be recorded as:	0	:	**0**	**3**	**2**	**7**	seconds
!! Do NOT record it this way:	3	:	**2**	**7**		
!! Or this way:	0	:	**3**	**2**	**7**	

If unable to perform, record:	0	:	6	0	0	0

- If the person is unable to perform or complete the test within 60 seconds, record 60 seconds on the form (as illustrated immediately above)

- Test the hand for which you are providing the glove/s.

Equipment notes:

The GAT MAT template is located at: http://usir.salford.ac.uk/id/eprint/32096/.

The GAT MAT can be downloaded and freely copied for research and educational purposes. Print off both Right and Left sides of the MAT in colour and laminate if you urgently need another copy. (A GAT MAT is in the assessment box).

Stopwatch: the same model of stopwatch must be used across sites. (A stopwatch is in the Assessment Box).

STARTING POSITION:

- All 3 tasks start with the patient's hands resting on the table each side of the laminated positioning sheet.
- Line the GAT MAT up with the edge of the table and placed centrally in front of the patient.
- Ensure the patient is seated comfortably and close enough to the table.

Follow this sequence:

- Demonstrate and explain the task; allow the patient **one** opportunity to practice. Then assess the task before moving on to the next task. If assessing both hands, the patient should practice with the right before testing the right hand and practice again with the left hand just before testing the left.
- Complete all 3 tasks for one hand before assessing the other hand (if gloves have been supplied for both hands)
- Check the stopwatch is set to 0 before each task.

Test the hand for which you are providing the glove.

If you are providing a left glove, test the LEFT hand. Note: if the person is right-handed, explain they still need to perform the task with their left (non-dominant) hand.

If both hands are supplied with gloves, test both hands.

GAT Instructions for Right hand:

Item 1: Put a Tubigrip stocking over the hand

Set up: **Position the laminated sheet with the word 'RIGHT' in top right corner.**
Put Tubigrip in position indicated on laminated sheet. Demonstrate, and then allow the patient one practice go.

Instruction*:*
"Put both hands on the table.

*When I say, "Ready, steady, go!" pick up the Tubigrip stocking with your **RIGHT** hand and pull it like a glove over your other hand until you can just see all of your fingertips including your thumb**.*

(Get ready to start the stopwatch*):*
"Ready, steady, GO!"

Score:

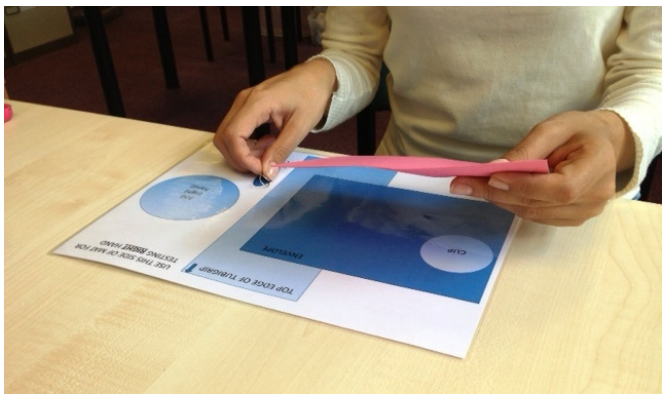
- **Start** the stopwatch as you say 'Go!'
- **Stop** the watch **when all fingertips are visible**.

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

Item 2: Attach paper clip to envelope

Set up: Place envelope and paper clip on indicated positions on the laminated sheet. Demonstrate, then allow patient one practice go. As you demonstrate, explain they do not have to put the envelope back in the marked position, just on to the table.

Instruction:
"*Put both hands on the table.*

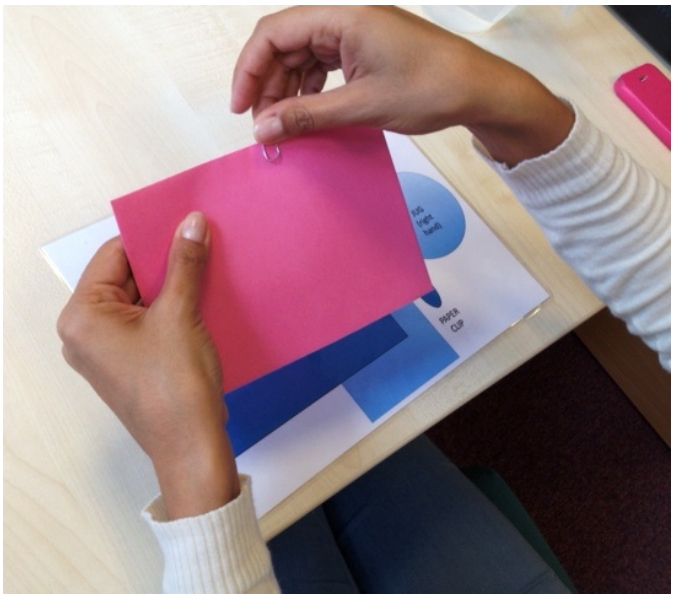


*When I say, "Ready, steady, go!" pick up the paper clip with your **RIGHT** hand and the envelope with your left hand. Pick them both up off the table – you are not allowed to pull them over the edge of the table – put the paper clip anywhere on the envelope and put the envelope back on the table".*

(Get ready to start the stopwatch*): "Ready, steady, GO!"*

Score:

- **Start** the stopwatch when you say 'Go!'
- **Stop** the watch when the envelope is placed back on the table.



- Do **not** use any other size of envelope or paperclip to that in the kit (see equipment list for sizes).

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

Item 3: Pour water from a jug

Set up: Fill the jug with water up to the 1L line. Place the full jug and plastic cup on the indicated positions on the laminated sheet. Demonstrate, then allow patient one practice go. As you demonstrate, explain they do not have to put the jug back in the marked position, just on to the table. They do not have to get the water to *exactly* the black line. Approximately is sufficient (or the patient will take extra time trying to be exact).

Instruction: "*Put both hands on the table.*

*When I say, "Ready, steady, GO" take the water jug with your **RIGHT** hand. Hold the cup steady with your left hand.*

Lift the jug; fill the cup with water about up to the black line, then put the water jug back on the table.

(Get ready to start the stopwatch*):*
"Ready, steady, GO!"

Score:

- Start the watch when you say "Go!"
- Stop the watch when jug is placed back on table.

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

NOTE: record the time as 60 seconds if the patient can't lift the jug with one hand

Now test the LEFT hand. Reverse the laminated sheet and positioning of item. Use the following instructions:

Item 1: Put a Tubigrip stocking over the hand

Set up: Put Tubigrip in position indicated on laminated sheet. Demonstrate then allow the patient to have one practice go.

Instruction*:*
"This is the same as before, but we are changing hands now.

Put both hands on the table.

*When I say, "Ready, steady, go!" pick up the Tubigrip stocking with your **LEFT** hand and pull it like a glove over your other hand until you can just see all of your fingertips including your thumb.*

(Get ready to start the stopwatch)*: "Ready, steady, GO!"*

Score:

- Start the stopwatch as you say Go.
- Stop the watch when all fingertips are visible.

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

Item 2: Attach paper clip to envelope

Set up: Place envelope and paper clip on laminated sheet in front of patient. Demonstrate then allow the patient to have one practice go.

Instruction:
"*Again as before but we are changing hands*.

Put both hands on the table.

*When I say, "Ready, steady, go!" pick up the paper clip with your **LEFT** hand and the envelope with your right hand. Lift them both off the table – you are not allowed to pull them over the edge of the table – put the paper clip anywhere on the envelope and put the envelope back on the table.*

(Get ready to start the stopwatch)*: "Ready, steady, GO"*

Score:

- Start the stopwatch when you say Go.
- Stop the watch when the envelope is placed back on the table.

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

Item 3: Pour water from jug

Set up: Fill the jug with water up to the 1L line. Place the full jug and plastic cup on the indicated positions on the laminated sheet. Demonstrate, then allow patient one practice go. As you demonstrate, explain they do not have to put the jug back in the marked position, just on to the table. They do not have to get the water to *exactly* the black line.

Instruction: "*Put both hands on the table. When I say, "Ready, steady, GO" take the water jug with your **LEFT** hand and the cup in your right. Lift the jug; fill the cup with water up to the black line, then put the jug back on the table.*

(Get ready to start the stopwatch) *"Ready, steady, GO."*

Score:

- Start the stopwatch as you say Go.
- Stop the timer when jug is back on table.

RESET THE STOPWATCH TO 0 AFTER YOU HAVE RECORDED THE TIME.

NOTE: record the time as 60 seconds if the patient can't lift the jug with one hand

These instructions are adapted from: Dellhag B, Bjelle A (1995). A Grip Ability Test for use in rheumatology practice. The Journal of Rheumatology. 22:1559-65.

Scoring: in the C–Gloves study this will be completed by the research team.

The Total GAT score is calculated by:

(Test 1 secs x 1.8) + Test 2 secs + (Test 3 secs x 1.8).

If any score for Test 1 or Test 2 is more than 60, a maximum score of 60 only is included (the correction factor is not applied).

Test 1 secs = 4.89; Test 2 secs = 3.64; Test 3 score = 67.5 secs (record 60 secs)

Total GAT score = (4.89 x1.8) + 3.64 + 60 = 72.44

Measure of Activity Performance of the Hand instructions (Paulsen et al, 2010).

Materials needed: pen

Ask the patient to read the statement and complete the questions: (alternatively you can read it out and record his/her answers).

This is an assessment of how you use your hands when doing everyday activities. Please tick the answer that best describes your ability to do the activities the last time you did them. If you use a gadget, please tick the answer that best describes your ability when using this. If you no longer do an activity because you have to get someone else to do it for you or you avoid doing it, please tick "not able to do."

	No difficulty	**Some difficulty**	**Great difficulty**	**Not able to do**
1. Buttoning buttons	☐	☐	☐	☐
2. Putting on socks or tights	☐	☐	☐	☐
3. Tying shoelaces	☐	☐	☐	☐
4. Squeezing out of tubes (e.g. toothpaste)	☐	☐	☐	☐
5. Brushing teeth/dentures	☐	☐	☐	☐
6. Wiping yourself after using the toilet	☐	☐	☐	☐
7. Opening screw top bottles	☐	☐	☐	☐
8. Opening cans (any type)	☐	☐	☐	☐
9. Opening jam jars	☐	☐	☐	☐
10. Slicing bread or cheese using a knife	☐	☐	☐	☐
11. Peeling raw vegetables	☐	☐	☐	☐
12. Stirring food in a pan	☐	☐	☐	☐
13. Wringing out cloths	☐	☐	☐	☐
14. Carrying shopping bags	☐	☐	☐	☐

15. Writing by hand	☐	☐	☐	☐
16. Typing on a computer	☐	☐	☐	☐
17. Pushing with hands when getting up from a chair	☐	☐	☐	☐
18. Carrying heavy objects like suitcases and bags (over 5kg/ 10 lbs)	☐	☐	☐	☐

- If the patient does not do an activity because they have **never** done it (i.e. NOT because they have had to give up due to arthritis), then write in “not applicable.” For example, if the person does not use a computer because they have never learnt how to and do not have access to one).
- If they have given up computing because of their hand problems, they should record “Not able to do”

Questions:

Ask the questions agreed by the North West Rheumatology OT Group to check about fit and wear regimen:

Since assessment 1:

- Have you had any problems during or after wearing the gloves? If yes, please explain what and when.
- How often have you worn your gloves in the last week? (Record as relevant to prescribed wear regimen).
- What effect, if any, have the gloves had on your hands and/or wrists? Please describe:
- If you stopped wearing the gloves, why was this?
- If you found the gloves helpful, what was the most important benefit?

For all answers, please write the key points the participant says, or write verbatim if possible. Please write legibly.

References:

Dellhag B, Bjelle A (1995). A Grip Ability Test for use in Rheumatology practice. The Journal of Rheumatology 22: 1559-65

Ellis B, Bruton A (2002) A study to compare the reliability of composite finger flexion with goniometry for measurement of range of movement of the hand. Clinical Rehabilitation 16:562-570.

Gilbertson L, Barber-Lomax S (1994). Power and Pinch Grip Strength Recorded using the Hand-Held Jamar Dynamometer and B+L Hydraulic Pinch Gauge**:** British Normative Data for Adults. British Journal of Occupational Therapy 57 (12):483-488

Lewis ES (2010) Finger circumference measures: inter-and intra-rater reliability. Hand Therapy 15(3):69-72

Melvin JL. Ch.22: Evaluation of Range of Motion. Rheumatic Disease: occupational therapy and rehabilitation. Edition 2. FA Davis Company: Philadelphia. 1989. Pages 281-290

Paulsen T, Grotle M, Garratt A, Kjeken I (2010). Development and psychometric testing of the patient-reported Measure of Activity Performance of the Hand (MAP-HAND) in rheumatoid arthritis. Journal of Rehabilitation Medicine 42:636-644

Appendix 1: Compression Glove Instruction sheet

COMPRESSION GLOVES

DESCRIPTION

These gloves are made of a combination of nylon and spandex material that stretches to provide gentle pressure. This may ease the pain, swelling and stiffness due to arthritis.

USE OF GLOVES

- The glove(s) should feel snug but not too tight (i.e. it feels comfortable).
- Gloves should be worn with the seams on the outside
- Use for short periods during the day initially to get used to them.
- Do not wear the gloves continuously for 24 hours a day.
- Remove gloves for hand hygiene purposes and make sure hands are washed and dried thoroughly.
- Gloves can be worn all night.
- The gloves should only be worn on the hand (s) prescribed as stated below:

- During daily activities ☐

- At night ☐

CAUTION

Stop using the gloves and contact the therapist if you experience any of the following effects:

- Numbness
- Pins and needles
- Compression that is too tight. Remove the glove if the fingertip becomes discoloured (i.e. it goes red, white or blue) or if you experience numbness or tingling in the tip of the finger.
- Allergic reaction
- Irritation to skin
- The gloves should not disturb your sleep, if they do then remove

CLEANING

Machine wash on a cold delicate cycle or hand wash. Lie flat to dry. **Do not** tumble dry or dry on direct heat (e.g. a radiator).

DRIVING

- Compression gloves have a slippery surface which can affect gripping the steering wheel. If you do wear them when driving, you must feel confident that you can safely control the vehicle. Discuss with your doctor if necessary.
- You should inform your insurance company if you are wearing the gloves for driving. This should not affect your insurance payments.

- Include **OT Contact details and layout as per individual NHS Trust requirements.**