**Supplementary File 4 Summary of Supported Self-Management Package**

In summary all participants were given standardised supported self-management packages. This consisted of 90 minutes 1:1 therapist intervention over two hospital visits.

All participants received:

1. Information on thumb base pain and instructions on how to carry out a hand exercise programme for thumb base pain. The exercise programme was supported by a trial specific colour hand exercise booklet. This booklet contained four main sections: 1. Causes of Thumb Osteoarthritis 2. Symptoms of Thumb Osteoarthritis 3. Treatment of Thumb Osteoarthritis 4. Hand Exercises.
2. Hand exercise programme. These were divided into a warm up exercise, Level 1, Level 2 and Level 3 hand exercises. Participants were requested to repeat the hand exercises at least 3 times a week for at least 20 minutes each time. They were advised to always become aware of their hand and thumb position and to avoid positions of thumb deformity. Participants were advised to start the hand exercises with the Warm-Up Exercise. Participants were asked to warm up their hand by placing their hand in a bowl of warm water and gently move their thumb in a circular direction. After one minute changing direction and carrying out these gentle moves for at least 2 minutes.

After the Warm-Up Exercise participants were asked to start with Level 1 Exercises. When participants were easily able to do Level 1 Exercises they were advised that they could go straight from the warm up to Level 2 Exercises. When participants were easily able to do Level 2 Exercises they were advised that they could go straight from the warm up to Level 3 Exercises.

Level 1 exercises included active range of motion exercises for thumb abduction, extension and thumb opposition

Level 2 exercises included resistive range of motion exercises for thumb abduction and extension using latex free rubber bands

Level 3 exercises included i) functional pinch tasks using 2 point pinch, 3 point pinch and lateral pinch activities using daily objects such as plates, pens, paper and clothes pegs ii) Grip and turn tasks using daily objects such as a key and bottle tops.

1. A trial specific colour booklet that detailed joint protection advice, activity pacing and general advice about osteoarthritis
2. The Arthritis Research UK Osteoarthritis booklet
3. A discussion with the therapist about the potential facilitators and barriers to engaging with self-management and a self-management contract sheet
4. A hand exercise diary

The supported self-management package has been published within the protocol [10] and is directly accessible via these weblinks

<https://bmjopen.bmj.com/content/bmjopen/9/10/e028342/DC1/embed/inline-supplementary-material-1.pdf?download=true>

Arthritis Research UK Osteoarthritis Booklet <https://bmjopen.bmj.com/content/bmjopen/9/10/e028342/DC2/embed/inline-supplementary-material-2.pdf?download=true>

Hand Exercise Programme

<https://bmjopen.bmj.com/content/bmjopen/9/10/e028342/DC3/embed/inline-supplementary-material-3.pdf?download=true>