ICC-COMPRESSION QUESTIONNAIRE
FOR HEALTH CARE PROVIDERS (ICC-CQ-H)

Description of the questionnaire

The purpose of the compression questionnaire is to evaluate the effect of different kinds of compression materials and systems and its acceptance and experience by the patient.
The compression questionnaire can be used for longitudinal comparative studies (not for cross-sectional studies). It should neither replace a quality of life-instrument nor a study protocol in which several outcome parameters may be specified, but should help to make patient orientated feelings with different compression modalities comparable.

The questionnaire consists of two parts. The first part has to be filled out by the health care provider. The second part has to be filled out by the patient.

The compression questionnaire for the health care provider consists of two subsections.
In the first subsection of the questionnaire, the health care provider describes the patient and the compression device/ system. In addition, he/ she performs an evaluation of the skin of the limb, which will be treated with the compression device/ system.
In the second subsection, the health care provider performs an evaluation of the limb with compression immediately after application and at follow up visits as requested in the study protocol.
In the appendix, an overview of reliable and valid general and disease-specific quality of life questionnaires is given. It is recommended to use one or more of these questionnaires in addition to the compression questionnaire.

The compression questionnaire for patients evaluates following aspects:

- Wearing time/ dosage of compression
- Application and removing of compression
- Compression comfort
- Complications of compression
- Physical functioning in relation to compression
- Disease-related symptoms
- General experience

Part 1. Assessment by health care provider – before start of tested compression

Date: …
ID patient: …

Name health care provider: …
Profession: nurse/ physical therapist/ occupational therapist/ physician/ other: …

General assessment

General information about the patient

1. Date of birth: …
2. Body weight (in kg): …
3. Body height (in m): …

Information about compression to be tested

1. Kind of compression to be tested (intervention or control):
   Product name:
   Company:

2. **Side** of limb with compression: left/ right/ both/ central

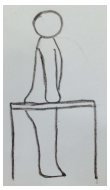
3. Compression **covers** (*circle all relevant areas*):
Fingers/ hand/ lower arm/ elbow/ upper arm/ breast/ trunk
Toes/ foot/ ankle/ lower leg/ knee/ thigh/ groin/ hip/ abdomen/ buttock/ genital region

4. **Reason** of compression:
   a. Prevention/ treatment/ both (*circle*)
   b. Oedema: yes/ no
      i. Type of oedema: venous oedema/ lymphoedema/ lipoedema/ other: …….. (*circle one or more types*)
      ii. If venous oedema: cause: …
      iii. If lymphoedema: cause: primary (indicate: …)
      secondary: cancer/ infection/ trauma/ obesity
   c. Venous ulcer: yes/ no
   d. Deep venous thrombosis: yes/ no
   e. Post-thrombotic syndrome: yes/ no
   f. Chronic venous disease: yes/ no
   g. Other: ….

5. **Duration of the disease** (with compression): the patient has the disease since (date):

6. **Location of the disease** to be treated with compression:
Fingers/ hand/ lower arm/ elbow/ upper arm/ breast/ trunk
Toes/ foot/ ankle/ lower leg/ knee/ thigh/ groin/ hip/ abdomen/ buttock/ genital region

7. **Pressure** obtained with the current compression material/ system (measured with PicoPress or Kikuhime; *timing is according to the instructions of the study protocol):*

	Arm Measured below the elbow (dorsal part)	**Leg** Measured 10-12cm above medial ankle (at B1)	**Pressure** mmHg
Rest without gravity	 Arm is horizontal and hand is supported	Leg is horizontal and foot is supported 	
Rest with support	 Arm is vertical with support on the fist	Standing with support on both feet	
During muscle contractions (minimal and maximal)	Arm is vertical while squeezing the hand	Walking on the spot	

Patient's history of compression:

1. Has the patient ever had compression? Yes/ no
   If yes, fill the questionnaire further out
   If no, go to part 2
2. First compression **since**: …….. (*date*)
3. When was compression applied last time before entering the study: … days ago *(if compression at this moment = 0 days)*.

<u>Compression in the past week:</u>

4. In the past week, did the patient wear **stockings/ garments**: yes/ no
   If yes: product name
   company: …
   round knitted/ flat knitted
   standard/ custom-made
   size: toe-cap/ knee –high/ thigh- high/ panty hose
   glove/ arm sleeve/ shoulder-cap
   other: …
   compression pressure range declared by producer: ….. mmHg

5. In the past week, did the patient use **intermittent pneumatic compression**: yes/ no
   If yes pressure: … mmHg
   number of chambers: …

6. In the past week, did the patient wear **bandages**: yes/ no
   If yes: who did apply the bandages: patient/ physical therapist/ nurse/ other: …

material bandages:
low-elastic or inelastic bandages:
non-cohesive (e.g. Durelast™, Rosidal K™, Comprilan™): yes/no
cohesive (e.g. Coban2™, Rosidal CC™): yes/ no
elastic bandages:
non-cohesive (e.g. Dauerbine™): yes/ no
cohesive (e.g. Coban™): yes/ no
silicone bandages (e.g. Silwrap™): yes/no
velcro wraps (e.g. Circaid™): yes/ no
other components (e.g. tubular sleeve, padding): …

7. In the past week, how many **hours during daytime** did the patient wear the compression device on average (or was compression applied)? … hours a day
8. In the past week, how many **hours at night** did the patient wear the compression device on average (or was compression applied)? … hours at night

<u>General history of compression:</u>

9. In the past, has the patient ever worn **stockings/ garments**? yes/ no
   If yes: (*indicate all items of stockings/ garments the patient received before entering the study*)
   period (from … to …): …
   product name: …
   company: …
   round knitted/ flat knitted
   standard/ custom-made
   size: toe-cap/ knee –high/ thigh- high/ panty hose
   glove/ arm sleeve/ shoulder-cap
   other: …
   compression pressure range declared by producer: ….. mmHg

10. In the past, has the patient ever had **intermittent pneumatic compression**? yes/ no
    If yes period (from … to …): …
    pressure: … mmHg
    number of chambers: …

11. In the past, has the patient ever received **bandaging**? yes/ no
    If yes: (*indicate all items of bandaging the patient received before entering the study*)
    period (from … to …): …
    who did apply the bandages? patient/ physical therapist/ nurse/ other: …
    material:
    low-elastic or inelastic bandages:
    non-cohesive (e.g. Durelast™, Rosidal K™, Comprilan™): yes/no
    cohesive (e.g. Coban2™, Rosidal CC™): yes/ no
    elastic bandages:
    non-cohesive (e.g. Dauerbine™): yes/ no
    cohesive (e.g. Coban™): yes/ no
    silicone bandages (e.g. Silwrap™): yes/no
    velcro wraps (e.g. Circaid™): yes/ no
    other components (e.g. tubular sleeve, padding): …

Skin

1. *Make a picture of the skin of the limb that will be covered with the tested compression in a frontal and lateral view!*

2. Make a judgement of the skin that will be covered with the tested compression material/ system. Indicate whether the skin problem is absent (= circle 0), doubtfully present (= circle 1) or clearly present (= circle 2). Indicate the region with the skin problem.

	Absent **0**	**Doubtfully present** **1**	**Clearly present** **2**	**Region with the skin problem**
1. Dryness	0	1	2	
2. Local swelling (*stagnation of fluid*)	0	1	2	
3. General redness *(e.g. evoked by compression material, infection or sudden increase of fluid)*	0	1	2	
4. Local redness *(irritation due to high local pressure)*	0	1	2	
5. Strangulation *(depression due to uneven compression)*	0	1	2	
6. Blister or vesicle (*local accumulation of fluid under the skin)*	0	1	2	
7. Erosion (*loss of epidermis)*	0	1	2	
8. Ulceration (*full thickness skin loss)*	0	1	2	
9. Papules *(solid elevation of skin with no visible fluid)*	0	1	2	
10. Other skin problem (please indicate which problem)**:** …	0	1	2	

Part 2. Assessment of tested compression by health care provider – after application of tested compression (during follow-up)

Date: … Hour of the day:

ID patient:

Name health care provider who assesses the tested compression: …

Compression material

1. *Make a picture of the limb with the tested compression in a frontal and lateral view!*

2. How well does the compression product/ system cover the whole limb (in relation to the area which it is intended to cover)? The limb is …

Not covered at all — Completely covered

0 1 2 3 4 5 6 7 8 9 10

3. How well does the compression product/ system fit around the covered limb? The compression product/ system …

Does not fit at all — Fits completely

0 1 2 3 4 5 6 7 8 9 10

4. How do you judge the compression product/ system according to your expectations? I judge the compression product/ system as …

Not appropriate at all — Absolutely appropriate

0 1 2 3 4 5 6 7 8 9 10

Adherence

5. Make an estimation of the adherence of the patient (by asking for the frequency of wearing the compression product/ system during the last period or by inspection of skin for sun tan). The patient is …

Probably not adherent at all — Probably completely adherent

0 1 2 3 4 5 6 7 8 9 10

Adherence= the extent to which the patient's behaviour matches agreed recommendations from the prescriber.

Skin

1. *Make a picture of the skin of the limb without tested compression in a frontal and lateral view!*

2. Make a judgement of the skin covered with the tested compression. Indicate whether the skin problem is absent (= circle 0), doubtfully present (circle 1) or clearly present (= circle 2)

	Absent **0**	**Doubtfully present** **1**	**Clearly present** **2**	**Indicate the region with the skin problem**
1. Dryness	0	1	2	
2. Local swelling (*stagnation of fluid*)	0	1	2	
3. General redness *(e.g. evoked by compression material, infection or sudden increase of fluid)*	0	1	2	
4. Local redness *(irritation due to high local pressure)*	0	1	2	
5. Strangulation *(depression due to uneven compression)*	0	1	2	
6. Blister or vesicle (*local accumulation of fluid under the skin)*	0	1	2	
7. Erosion (*loss of epidermis)*	0	1	2	
8. Ulceration (*full thickness skin loss)*	0	1	2	
9. Papules *(solid elevation of skin with no visible fluid)*	0	1	2	
10. Other skin problem: (please indicate which problem): …	0	1	2	

Appendix: reliable and valid quality of life questionnaires

General quality of life questionnaires

Short Form Health Survey 36 (SF-36)
Nottingham Health Profile (NHP)
Euroqol 5D (EQ-5D)

Disease-specific quality of life questionnaires

Lymphoedema

Upper Limb Lymphoedema 27 questionnaire or ULL-27 (*Viehoff et al 2006*)
Lymphoedema Functioning Disability and Health questionnaire for upper limb lymphoedema or Lymph-ICF-UL (*Devoogdt et al 2011*)
Lymphoedema Functioning Disability and Health questionnaire for lower limb lymphoedema or Lymph-ICF-LL (*Devoogdt et al 2014*)
Lymphoedema Quality of Life or LYMQOL questionnaire (*Keeley et al 2010*)
FLQA-l (*Augustin et al 2005*)
Lymphedema quality of life inventory (LyQLI) (*Klernäs et al 2014*)

Deep venous thrombosis

VEINES-QOL/Sym questionnaire (*Kahn 2006*)

Chronic venous insufficiency

Chronic Venous Insufficiency Quality of Life questionnaire (CIVIQ) (*Launois 1996*)
Tübingen Questionnaire for measuring Quality of Life in patients with CVI (TLQ-CVI) (*Klyscz et al 1998*)

Venous leg ulcer

Venous leg ulcer quality of life questionnaire or VLU-QoL (*Hareendran et al 2007*)
Health-related quality of life in chronic wounds or Wound-QoL questionnaire (*Blome et al 2014*)