Do we need a standardization for Adjustable Compression Wrap Devices?

Working Group

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YES

For the best interest of patients
Not a « true labyrinth »

Goal of simplicity
1- first, we need a precise definition of what ACWDs are for vascular disorders

2- should we fix limits for
   - ADJUSTABLE
   - COMPRESSION
   - WRAPPING
   - DEVICE
ADJUSTABLE

Fasteners easy to use, to open, to stretch, to clean,

Velcro

How to keep Velcro fasteners clean:

1- Keep the Velcro fastened when not in use.
2- Spray the Velcro with an antistatic spray.
3- Clean the hooked side of Velcro fasteners using another piece of Velcro.
4- Use a crochet hook to clean Velcro fasteners.
5- Use tweezers to remove stubborn debris.
6- Blot the looped side of the fastener with duct tape.
7- Wash the Velcro fasteners with soap and water.

https://www.wikihow.com/Keep-Velcro-Fasteners-Clean

Others?
repositionnable adhesive, zip, snap,...
future.....
COMPRESSION

A stiff device?
- not mandatory
- better effects with stiff devices?
- lack of clinical trials

Guidance for pressure, for the patient?
- Yes or No?

A minimum pressure?
- Yes = ensure that the patients cannot wrap at low pressure

ELASTIC

- Re-adjustement of Velcros by the patient according to the self feeling.

Adapted from Mosti et al., 2015
DEVICE

Categories:

- Simple layer
- Two « layers »
- Kits
- Different items

Restrictions?
For example, in case of oedema should a leg wrapping be always associated to a foot wrapping?
DEVICE

Composition
- No restriction
- Manufacturer = free to innovate

Sizing
- Custom made?
- A limited number of sizes or not?

  e.g. one single size = can be provided immediately during the consultation. No stock, measurements,.. in the office
Major property of a ACWD

Easy to use

Easy application and removal

Patients should be included in the process
Not only easy to use

A French inquiry told us (Ouvry et al., 2014):

Prescription of MCS for DVT: 62% of vascular physicians do not prescribe the correct level of pressure.

**WHY?**

First reason: because they said not having enough time during their consultation to explain why a strong pressure is better than a lighter one!!

Easy to teach

In less than 3 minutes?

A standardized test to test each ACWD on this point?
3 - TOLERANCE+++  

| Measurement | Questionnaire + score |

Quote (Mosti et al., 2015):

Patient perception of the compression system was assessed using a visual analog scale (VAS) in accordance with the outcome of an International Compression Club meeting in Maastricht 2014 (http://www.icccompressionclub.com). **Validation studies are in preparation.**

The following items were assessed:
- the wearing comfort of the compression devices (pain, heaviness sensation, swelling sensation, edema related discomfort, itching, restless leg), and
- parameters specifically related to the compression device (application difficulty, symptoms worsening, difficulty in wearing shoes, re-adjustment difficulty, cosmetic appearance).
4 - More than specifications

The minimum medical requirements mandates in the future clinical studies on ACWD. See Rabe et al. EJVES 2008.

Systematically reported should be:
- Standardized tolerance test report
- Number of readjustments per patient
- Stiffness indexes measurements

<table>
<thead>
<tr>
<th>Trials</th>
<th>N</th>
<th>Age</th>
<th>Adverse events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benigni, 2018</td>
<td>38</td>
<td>88.2 ± 5.2</td>
<td>?</td>
</tr>
<tr>
<td>Damstra, 2013</td>
<td>30</td>
<td>59.9</td>
<td>? Patient satisfaction</td>
</tr>
<tr>
<td>Mosti, 2015</td>
<td>36</td>
<td>71.4 ± 10.2</td>
<td>« confort index » (VAS)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>ACWD</th>
<th>Stiffness /SSI</th>
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<tbody>
<tr>
<td>Juxta-fit</td>
<td>2 mmHg (-1, 7) (Damstra, 2013)</td>
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<tr>
<td></td>
<td>9 mmHg (IQR 8-10) (Mosti, 2015)</td>
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<tr>
<td>Farrowrap</td>
<td>« semi-rigid » / Light</td>
</tr>
<tr>
<td>Easywrap</td>
<td>Light and strong</td>
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<tr>
<td>ACWD standardization</td>
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<td>----------------------</td>
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<tr>
<td><strong>Technical</strong></td>
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<tr>
<td>Definition (+ classification)</td>
<td></td>
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<tr>
<td>Technical way to curb pressure (not too low) and test</td>
<td></td>
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<tr>
<td>To measure the number of readjustments (for clinical trials only? Connected ACWD?)</td>
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<tr>
<td>A maximum weight</td>
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<tr>
<td><strong>Medical</strong></td>
<td></td>
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<tr>
<td>Standardized tolerance test (max wearing time reported in clinical cases: 15 months)</td>
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<tr>
<td>Standardized practical test to evaluate patient education to each ACWD</td>
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<tr>
<td>New methodology to rank clinical studies on ACWD</td>
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