Contents

Page 4
T.E.D.™ anti-embolism stockings

Page 5
Getting started
Sizing

Page 6
Application

Page 7
Maintenance
Contradictions
Charting

Page 8
Maintaining skin integrity with T.E.D. anti-embolism stockings while preventing DVT and/or improving vascular circulation

Page 9
Thrombosis risk assessment for surgical & medical patients

Page 10
Selection guide
T.E.D.™ anti-embolism stockings

- T.E.D. anti-embolism stockings apply the clinically proven graduated pressure pattern of 18mmHg at the ankle, 14mmHg at the calf, 8mmHg at the popliteal, 10mmHg at the lower thigh and 8mmHg at the upper thigh. It is important to measure patient’s leg sizes to assure that the appropriate pressure pattern is applied.

- T.E.D. anti-embolism stockings are clinically proven to reduce DVT by 50%, and to promote increased blood flow velocity in the legs 138% of baseline by compression of deep venous system.

- T.E.D. anti-embolism stockings have been clinically proven to prevent the damaging effects of venous distension that occurs during surgery and hospitalization.

Getting started

You will need:
- Wall chart
- Tape measure
- T.E.D. stocking order pad/sizing chart

Nursing is responsible for sizing, application, and maintenance of T.E.D. anti-embolism stockings.

Sizing

Proper sizing and application must be assured for optimal benefit of stockings. Refer to instructions for use in packaging for specific sizing information.

A. Thigh length and thigh length with belt (Figure I)
1. Measure upper thigh circumference at gluteal furrow. (Measurement #1)
2. Measure calf circumference at greatest dimension. (Measurement #2)
3. Measure leg length from gluteal furrow to base of heel. (Measurement #3)
4. Consult the wall chart or back of this guide to determine the appropriate size.
   a. If right and left legs measure differently, order two different stocking sizes.
   b. If thigh circumference is greater than 91.4cm, select a knee length stocking.
   c. If calf circumference is outside the specified range of the recommended thigh length stocking based on Measurement #1, select a knee length stocking.

B. Knee length (Figure II)
1. Measure calf circumference at greatest dimension. (Measurement #1)
2. Measure length from bend of knee to base of heel. (Measurement #2)
3. Consult the wall chart or back of this guide to determine the appropriate size.
   a. If right and left legs measure differently, order two different stocking sizes.

C. Order two pairs of stockings to ensure that prophylaxis is uninterrupted during laundering care or to send a pair home with the patient.

Clinically proven pressure pattern

Upper thigh, 8mmHg
Lower thigh, 10mmHg
Popliteal, 8mmHg
Calf, 14mmHg
Ankle, 18mmHg

Fig. I

Fig. II

Did you know?
According to a study by Dr. Sigel, the effect of graduated compression stockings on venous velocity lasts up to 30 minutes after removal of the stockings.
Applying

A. Insert hand into stocking as far as the heel pocket (Figure III)

B. Grasp center of heel pocket and turn stocking inside out to heel area. (Figure IV)

C. Position stocking over foot and heel. Be sure patient’s heel is centered in heel pocket. (Figure V)

D. Pull a few centimeters of the stocking up around the ankle and calf.

E. Continue pulling the stocking up the leg. The stitch change (change in fabric sheerness) should fall between 2.5 to 5cm below the bend of the knee. (Figure VI)

F. As thigh portion of the stocking is applied, start rotating stocking inward so panel is centered over femoral artery. Panel is placed slightly towards the inside of the leg. When using thigh length with belt (Figure VII), be sure side panels are at hip bone and upper hem rests at the gluteal furrow.

When using thigh length, the top band rests in the gluteal furrow. (Figure VIII)

G. Smooth out wrinkles

H. Align inspection toe to fall under the toes. (Toes should not stick out.)

I. Instruct patient as to the proper positioning of stocking to insure that the patient will not reposition the stockings incorrectly.

J. For improved efficacy in moderate/high risk patients, use T.E.D. anti-embolism stockings plus Kendall SCD™ compression system, A-V Impulse System™ foot pump or anticoagulant. As dictated by the physician or hospital guidelines.

Maintenance

A. Properly sized stockings need to be removed daily during bathing to inspect condition of skin if possible.

B. Wash every 2 to 3 days to remove bodily secretions.

C. Machine wash, temperature not to exceed 70°C; Machine dry for 15 to 20 minutes, temperature not to exceed 80°C.

D. Keep stockings free from ointments, oil, lanolin and substances which deteriorate elastic.

E. With correct care, stockings last 2 to 3 months (approximately 30 washings).

Contraindications

Stockings are not recommended for patients with the following:

1. Any local leg condition in which stockings would interfere, such as: dermatitis, vein ligation (immediate postoperative), gangrene, or recent skin graft.

2. Severe arteriosclerosis or other ischemic vascular disease.

3. Massive edema of legs or pulmonary edema from congestive heart failure.

4. Extreme deformity of leg.

Charting

A. Record style and size of stocking applied, and date applied.

B. Record removal of stockings.

C. Note appearance of skin.

D. Report absence or presence of tenderness in calves, thighs or toes.

E. Record inspection of stockings during each shift.

F. Be aware of patient’s size changing and weight loss.
Maintaining skin integrity with T.E.D. anti-embolism stockings while preventing DVT and/or improving vascular circulation

A. Assess potential risk for altered skin integrity
- Altered mobility (hyperactivity or decreased mobility)
- Altered nutritional state (emaciation; albumin 3.0 g/dl)
- Altered metabolic state
- Altered skin turgor
- Altered sensation
- Altered circulation (venous or arterial)
B. Measure patient
   DO use a measuring tape.
   DO remeasure with decrease or increase of weight. (i.e., edema).
C. Apply stockings
   DO *walk* the stockings up the legs and use powder sparingly, if necessary, to assist with easy application.
   DO check for proper heel and gusset placement.
   DO remove stockings at least daily, inspect skin, provide skin care and reapply stockings.
D. Maintain stockings properly
   DO check for proper heel and gusset placement.
   DO remove stockings at least daily, inspect skin, provide skin care and reapply stockings.
E. Inspect skin
   DO inspect skin* (especially ankle/heels) at least every 8 hours and document your assessment.
   DO assess patient’s subjective report of comfort/discomfort.
F. Prevent all sources of pressure, shear, and friction
   DO loosen linens and use bed cradles to increase patient comfort.
   DO position patient using a lift sheet, overhead trapeze, etc.
   DO keep HOB lower than 30° whenever possible.
   DO use devices or measures which suspend heels to relieve pressure.

DON’T guess size of stockings. Tight or loose fitting stockings can impact compression efficacy.
DON’T pull or tug into place. This increases friction and shear.
DON’T position the heel of the stocking above or below the heel. This could impact the pressure gradient.
DON’T take stocking off for long periods of time to let the skin “breathe”. This could impact efficacy.
DON’T massage reddened areas. This can increase tissue damage.
DON’T rely solely on visual signs of pressure or friction. Visual signs of tissue damage may be late or absent.
DON’T tuck linens tightly. This increases pressure over heels and tops of toes.
DON’T pull patient up in bed dragging heels. This increases friction to heels.
DON’T keep HOB > 30° for long periods of time. This may increase friction and shear to heels.
DON’T use donut-type devices or rely solely on pressure reduction devices.

* More frequent inspection or aggressive care may be required for patients at high risk or in patients with signs and symptoms of tissue change.

Thrombosis risk assessment for surgical & medical patients

Step 1: Risk factors associated with clinical setting
Choose no more than one of the below listed disease states or associated hospital services to determine the baseline risk factor score.

- Minor surgery (>45 min.)
- More frequent inspection or aggressive care may be required for patients at high risk or in patients with signs and symptoms of tissue change.
- Maintaining skin integrity with T.E.D. anti-embolism stockings

*- Combining GCS with other prophylactic methods (LDUH, LMWH or IPC) may give better protection than any modality alone.
† Data demonstrates benefit of Plantar Pneumatic Compression in total joint arthroplasty. Plantar Pneumatic Compression can also be used when IPC is not feasible, including leg trauma.

### Additional risk factor score

Step 2: Risk factors associated with patient

#### Clinical

- Age 41 to 60 years (2 factors)
- Age over 60 years (2 factors)
- History of DVT/PE (3 factors)
- History of Prior Major Surgery
- Pregnancy, or postpartum (<1 month)
- Malignancy (2 factors)
- Varicose veins
- Inflammatory bowel disease
- Obesity (>20% of ideal body weight)
- Oral contraceptives or hormone replacement therapy

#### Hypercoagulable states (Thrombophilia)

- Factor V Leiden/ Activated protein C resistance
- Antithrombin III deficiency
- Protein C or S deficiency
- Dysfibrinogenemia
- Prothrombin 20210A
- Homocysteinemia
- Hyperviscosity syndrome
- Myeloproliferative disorders

#### Acquired

- Lupus anticoagulant
- Antiphospholipid antibodies
- Heparin-induced thrombocytopenia
- Disorders of plasminogen & plasmin activation
- Inherited thrombophilias

### Baseline risk factor score (If Score ≥ 5, go to Step 4)

### Step 3: Total risk factor score

#### Baseline + additional

### Step 4: Recommended prophylactic regimens for each risk group

#### Low risk (1 factor)

- No specific measures
- Early ambulation

#### Moderate risk (2 factors)

- IPC or LDUH (q12h) or LMWH or GCS
- OR IPC or GCS

#### High risk (3-4 factors)

- GCS® and IPC or LDUH (q8h) or LMWH
- OR GCS® and IPC + LDUH or LMWH

#### Highest risk (5 or more factors)

- GCS® and IPC + LDUH or LMWH or ADH or LMWH or Oral anticoagulants

* Combining GCS with other prophylactic methods (LDUH, LMWH or IPC) may give better protection than any modality alone.
Selection guide

Thigh length style

<table>
<thead>
<tr>
<th>Thigh circumference</th>
<th>Calf girth</th>
<th>Leg length</th>
<th>Code</th>
<th>Size</th>
<th>Colour</th>
<th>Toe Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30.5 cm</td>
<td>SMALL</td>
<td>Less than 24 cm</td>
<td>3271LF</td>
<td>A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SMALL</td>
<td>SMALL</td>
<td>3130LF</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>30.5 to 38 cm</td>
<td>MEDIUM</td>
<td>3171LF</td>
<td>D</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>MEDIUM</td>
<td>44 cm or more</td>
<td>3417LF</td>
<td>E</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>44 cm or more</td>
<td>3548LF</td>
<td>F</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>38 to 44.5 cm</td>
<td>3648LF</td>
<td>G</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3681LF</td>
<td>H</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>4181LF</td>
<td>K</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>74 cm to 84 cm</td>
<td>4141LF</td>
<td>L</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>38.5 to 41.3 cm</td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3818LF</td>
<td>M</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>61.5 to 81.3 cm</td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3818LF</td>
<td>N</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>3818LF</td>
<td>O</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>3818LF</td>
<td>S</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>74 cm to 84 cm</td>
<td>3818LF</td>
<td>T</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Thigh length with belt style

<table>
<thead>
<tr>
<th>Thigh circumference</th>
<th>Calf girth</th>
<th>Leg length</th>
<th>Code</th>
<th>Size</th>
<th>Colour</th>
<th>Toe Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30.5 cm</td>
<td>SMALL</td>
<td>Less than 24 cm</td>
<td>3271LF</td>
<td>A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SMALL</td>
<td>SMALL</td>
<td>3130LF</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>30.5 to 38 cm</td>
<td>MEDIUM</td>
<td>3171LF</td>
<td>D</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>MEDIUM</td>
<td>44 cm or more</td>
<td>3417LF</td>
<td>E</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>44 cm or more</td>
<td>3548LF</td>
<td>F</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>38 to 44.5 cm</td>
<td>3648LF</td>
<td>G</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3681LF</td>
<td>H</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>4181LF</td>
<td>K</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>74 cm to 84 cm</td>
<td>4141LF</td>
<td>L</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3818LF</td>
<td>M</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>3818LF</td>
<td>N</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>Less than 74 cm</td>
<td>3818LF</td>
<td>O</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>74 cm to 84 cm</td>
<td>3818LF</td>
<td>S</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>84 cm or more</td>
<td>3818LF</td>
<td>T</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Knee length style

<table>
<thead>
<tr>
<th>Calf girth</th>
<th>Leg length</th>
<th>Code</th>
<th>Size</th>
<th>Colour</th>
<th>Toe Top</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30.5 cm</td>
<td>SMALL</td>
<td>3271LF</td>
<td>A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SMALL</td>
<td>3130LF</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30.5 to 38 cm</td>
<td>MEDIUM</td>
<td>3171LF</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>MEDIUM</td>
<td>3417LF</td>
<td>D</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3548LF</td>
<td>E</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3648LF</td>
<td>F</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3681LF</td>
<td>G</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3738LF</td>
<td>H</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3818LF</td>
<td>I</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>3818LF</td>
<td>J</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

For additional information, log on to www.covidien.com/dvtcompression

References:

CONSIDER, CONSIDER with logo, Covidien logo and positive results for life are U.S. and/or internationally registered trademarks of Covidien AG. Other ™ marked brands are trademarks of a Covidien company. © 2011 Covidien. All rights reserved.

VRTX061 566 0018