QALY Gain After Deep Venous Reconstructions: A Four-Year Follow-Up

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Venous hypertension:
- Deep venous insufficiency (< 90 mmHg)
- Deep venous obstruction (! > 200 mmHg)

Etiology of DVO

Aachen-Maastricht Experience:
- 376 patients
  - May-Thurner (98 patients)
  - PTS (202 patients)
    - Percutaneous procedure
    - PTS (76 patients)
      - Hybrid procedure
  - Scores:
    - Clinically: VCSS, Villalta, Venous Claudication (VC),
      QoL: Veines-QoL/Sym
    - Patency

May-Thurner n=98

PTS (percutaneous procedures) n=202

Percent survival
**Indications for Hybrid OP's**
- Improved inflow measures
  - Endophlebectomy (CFV involvement)
  - AV fistula

**Clinical improvement**
- All improve significantly

**Disease specific QoL: Veines-QoL/Sym**

<table>
<thead>
<tr>
<th>VEINES-QOL</th>
<th>T0</th>
<th>T48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>44,86</td>
<td>65,98</td>
</tr>
<tr>
<td>Secondary</td>
<td>49,57</td>
<td>61,70</td>
</tr>
<tr>
<td>Failed</td>
<td>47,64</td>
<td>44,18</td>
</tr>
</tbody>
</table>

**Disease specific QoL: Veines-QoL/Sym**

Extensive PTS: stenting, endophlebectomy and AVF

- Primary patency
- Rejected primary patency
- Secondary patency

**PTS (hybrid procedure) n=76**

*Patency (%) vs. FU (d)*

**Disease specific QoL: Veines-QoL/Sym**

- > +20
- > 6 = clinically significant

*VEINES-QOL (T0, T48) selected for short patency*
Disease specific QoL: Generic

![EQSD-3L graph]

Significant improvement!!

**Conclusion:**

Stenting in deep venous obstruction shows over 4 years:

- **A sustainable improved QoL**
  - Disease specific
  - Generic

- **Improved clinical scores**

- **A good Cost-effectiveness with a QALY of 9.722**

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**QALY: calculation**

<table>
<thead>
<tr>
<th>Year</th>
<th>Conventional treatment</th>
<th>Interventional treatment</th>
<th>Incremental QALY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.20</td>
<td>0.62</td>
<td>0.42</td>
</tr>
<tr>
<td>2</td>
<td>0.39</td>
<td>0.79</td>
<td>0.40</td>
</tr>
<tr>
<td>3</td>
<td>0.39</td>
<td>0.88</td>
<td>0.49</td>
</tr>
<tr>
<td>Total QALY</td>
<td>0.97</td>
<td>1.15</td>
<td>0.18</td>
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</tbody>
</table>

**Costs**

<table>
<thead>
<tr>
<th>Year</th>
<th>Conventional treatment</th>
<th>Interventional treatment</th>
<th>Incremental costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25,000</td>
<td>15,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2</td>
<td>55,000</td>
<td>25,000</td>
<td>30,000</td>
</tr>
<tr>
<td>3</td>
<td>55,000</td>
<td>25,000</td>
<td>30,000</td>
</tr>
<tr>
<td>4</td>
<td>55,000</td>
<td>25,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>

**Total costs**

- Conventional: €165,000
- Interventional: €135,000

\[
\text{QALY} = 9.722 \leq 50,000 \text{ €}
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