What if...

You could reliably and repeatedly access the right internal jugular vein and avoid using other veins which may compromise permanent arteriovenous access?
Introducing the Surfacer® Inside-Out® Access Catheter System, the proprietary Inside-Out® approach to restore access and preserve options.

In patients with venous occlusive disease, the current approach is to move to another vein if a subsequent central venous catheter (CVC) is needed. Failed venous access attempts may prevent permanent arteriovenous (AV) access, increasing patient morbidity and the overall cost of care.¹

To restore and preserve access in chronically occluded veins, John Gurley, M.D.² developed the Inside-Out® approach – allowing clinicians to change the standard of care.
**RESTORE ACCESS**

- Achieves repeatable and reliable central venous access to the right internal jugular (RIJ) vein
- Preserves the viability of secondary central veins
- Optimizes placement and maturation of permanent AV access

**RELIABLE PROCEDURE**

- 100% (12 of 12) of patients underwent successful central venous access placement³
- 100% (12 of 12) of patients maintained patency of central venous access through long-term follow-up visit³
- No device-related adverse events were reported within 48 hours and at 14-day follow-up visit³

**REDUCE COSTS**

- Supports the achievement of permanent AV access which reduces hemodialysis provider cost and downtime by decreasing catheter-associated morbidity and complications¹
- Easier, minimally invasive procedure compared to surgical bypass for patients with totally occluded central veins

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**CLINICAL EXPERIENCE**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Fluoroscopy time (min)</th>
<th>Technical success</th>
<th>Procedural complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside-Out® Central Venous Access Clinical Experience⁴ (N=116)</td>
<td>4.1 ± 5.3</td>
<td>100%</td>
<td>1 (0.8%)b</td>
</tr>
<tr>
<td>Surfacer® System FIM Study² (N=12a)</td>
<td>7.4 ± 2.8</td>
<td>100%</td>
<td>1 (8.3%)c</td>
</tr>
</tbody>
</table>

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**REPEATED PROCEDURES**

- Percentage of repeated procedure counts on the same patient. Clinical experience with the Inside-Out® procedure.⁴

- 67% of patients had 1 procedure
- 17% of patients had 2 procedures
- 9% of patients had 3 procedures
- 5% of patients had 4+ procedures

- a. All procedures completed with local anesthesia and light sedation.
- b. Pocket hematoma due to excessive oral anticoagulation.
- c. Mild hematoma at the clavicular exit due to tunneling and unrelated to the Surfacer device. Manual compression was not required.

**REDUCE COSTS OF CARE¹**

- Achieving permanent AV access with the Surfacer® System
  - Stop destruction of veins
  - Improve quality of life

- INCREASED COST OF MAINTAINING ACCESS

- **NO OCCLUSIONS**
- **RIJ OCCLUSION**
- **2 OCCLUSIONS**
- **MULTIPLE OCCLUSIONS**
**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>600200/A</td>
<td>Surfacer® Inside-Out® Access Catheter System (single)</td>
<td>1</td>
</tr>
</tbody>
</table>

**REFERENCES**

1. Data on file at Bluegrass Vascular Technologies, Inc.
2. Department of Cardiology, University of Kentucky, Lexington, KY, USA.
4. John C Gurley, MD. Inside-Out Central Venous Access - Presentation (University of Kentucky May 9, 2012), Heart Rhythm Society 2012, May 9-12, Boston MA.


Before using: Refer to **Instructions for Use** for indications, contraindications, warnings, precautions and directions for use.