Wound Protection & Surgical Field Exposure in Thyroid Surgery and Breast Surgery

- ViClean Single Use Wound Protector
  WPC

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01 Brief Introduction of ViClean Wound Protector.

02 Traditional Expansion and Exposure of Skin Flap in the Thyroid Surgery.

03 General Introduction of Wound Protector WPC.
1. Brief Introduction of ViClean Single Use Wound Protector

WPA--Traditional Height-Adjustable wound protector
- 5 models, S,M,L,XL,XXL.

WPB--Innovative Height-Adjustable Wound Protector
- Minimally Invasive Incision : S,M.
- Common Size Incision : L,XL,XXL.

WPC--Innovative Height-Fixed Wound Protector
- 4 models, S,M,L,XL.

Remarks:
The actual incision shape and size should be taken into account in the specific clinical use. Surgeons decide on their own.
1.1 Models of ViClean Single Use Wound Protector

**Height-fixed type WPC:**
- Thyroid surgery
- Breast surgery
- Thoracic surgery

**Height-adjustable type WPA/WPB:**
- Caesarean Section
- Gastrointestinal surgery
- Hepato-pancreato-billary surgery
2. Guideline

*Strategies to Prevent Surgical Site Infections in Acute Care Hospital: 2014 Update;

Use impervious plastic wound protectors for gastrointestinal and biliary tract surgery (quality of evidence: I).

A wound protector is a plastic sheath that lines a wound and can facilitate retraction of an incision during surgery without the need for additional mechanical retractors.

A recent meta-analysis of 6 randomized clinical trials in 1,008 patients reported that use of a plastic wound protector was associated with a 45% decrease in SSIs.

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2.1 Traditional Surgical Incision in Thyroidectomy

Transverse Neck Incision
2.2.1 Expansion and Exposure of Skin Flap

- Incise the skin, open the flap up and down.
2.2.2 Expansion and Exposure of Skin Flap

**Flap Traction:**
Traditional operation method is to use forceps to clip or suture suspension.

**Defect:**
1. No incision protection during the operation.
2. Point trauma.
3. Electric injury or cautery.

**Risk:**
- Wound infection or poor healing
3. General Introduction of Wound Protector WPC

Model WPC

- Evenly expand the flap, maximally expose incision to provide a clear operative field.
- Stretch the muscle groups in the neck, such as Musculus sternocleidomastoideus.
- Protect incision from damage such as electronic injury, cautery and point trauma, and avoid wound infection.
3.1.1 Specifications of ViClean Wound Protector WPC

- **Structure Diagram**

| 1. | Outer Ring |
| 2. | Inner Ring |
| 3. | Channel |

Material: Made of Silica Gel. (Outer ring is made of nickel-titanium memory alloy.)

- **Applications**

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Size of incision(cm)</th>
<th>Recommended application</th>
</tr>
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<tbody>
<tr>
<td>WPC</td>
<td>S</td>
<td>2-4cm</td>
<td>Breast surgery, Thyroid surgery with minimal incision</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>3-5cm</td>
<td>Breast surgery and Thyroid surgery with minimal incision</td>
</tr>
<tr>
<td></td>
<td>L</td>
<td>4-6cm</td>
<td>Breast surgery and Thyroid surgery with minimal incision</td>
</tr>
<tr>
<td></td>
<td>XL</td>
<td>5-8cm</td>
<td>Axillary dissection, lacteal gland incision and Thyroid surgery</td>
</tr>
</tbody>
</table>
3.1.2 Specifications of ViClean Wound Protector WPC

- **How to Use**

1. See figure 1. Take out product from sterile package, insert inner ring into the incision.

2. See figure 2. After surgery, use one hand to grasp the inner ring, and carefully remove it from the incision.
### 3.2 Feature and Benefit of Model WPC

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>Outer ring is made of nickel-titanium memory alloy.</td>
<td>Maximumly expose incision to provide a clear operative field, enlarge the operative space</td>
</tr>
<tr>
<td>Good elasticity, maintain 360 degree circle, no deformation after embedding.</td>
<td>Expand flaps evenly, wounds heal well</td>
</tr>
<tr>
<td></td>
<td>Make a smaller incision to operate neck lymph node dissection by moving WPC during Thyroid surgery.</td>
</tr>
<tr>
<td>Channel attaches incision closely</td>
<td>Tightly wrap tissue, prevent bleeding</td>
</tr>
<tr>
<td></td>
<td>Maintain moisture at the incision site</td>
</tr>
<tr>
<td></td>
<td>Protect incision from instrument injury</td>
</tr>
<tr>
<td>Tough material</td>
<td>Avoid surgical instruments scratching protective layer and channel</td>
</tr>
<tr>
<td>Brim shape design</td>
<td>Large brim area, protect wound and anterior portion skin.</td>
</tr>
</tbody>
</table>
3.2.1 Model WPC VS Alexis

- Long channel of the traditional wound protector such as Alexis makes it inconvenient to use during Thyroid surgery, surgeons need to turn over white outer ring inward to adjust channel length. Compared with WPC, Alexis wound protector is time-consuming and inconvenient.

- In addition, the material of WPC has high strength and good elasticity, it has better performance on the wound expansion than Alexis.
THANKS FOR WATCHING!