Estimation Of Long-Term Aortic Risk After EVAR: The LEAR Model: How Can It Guide And Modulate Surveillance Protocols

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Introduction

- EVAR: 20% Aortic Complications within 5 years
- Treating 1/III Endoleaks prevents rupture
- Surveillance after EVAR is mandatory
- Device-specific outcomes and surveillance

LEAR: A Comprehensive Approach

Demographics, Morphology
Adjuncts, Endoleak
Sac progression

LEAR: A Comprehensive Approach

Predicted Risk
Low Risk
Surveillance
High Risk
Surveillance Plus

Validation PAS/IDE/ France
**Regulatory**

- Multiple scenario testing
- Improved with 1-year data
- IFU Development

**NICE** National Institute for Health and Care Excellence

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**Pre-op & 1-year**

<table>
<thead>
<tr>
<th>AAA dia baseline</th>
<th>Max iliac diam</th>
<th>Suprarenal angle</th>
<th>Freedom from device problems &amp; reint high risk group</th>
<th>Freedom from device problems &amp; reint low risk group</th>
<th>Prop patients in high risk group</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>18</td>
<td>60</td>
<td>54%</td>
<td>72%</td>
<td>22%</td>
</tr>
<tr>
<td>65</td>
<td>18</td>
<td>60</td>
<td>60%</td>
<td>85%</td>
<td>21%</td>
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</tbody>
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**Conclusion**

- LEAR provides a device specific estimation of EVAR outcome
- Pre-op variables for initial surveillance protocol
- Changes in aortic diameter predict future risk
- Regulatory interest in outcomes of LEAR
- E-portal for dissemination