EVAS and chEVAS will replace EVAR and FEVAR

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Liverpool Vascular & Endovascular Service
Disclosure of interest

Professional fees
Educational grants
Research grant
Levels of evidence

I Evidence obtained from at least one properly designed RCT

II-1 Evidence obtained from well-designed controlled trials without randomization

II-2 Evidence obtained from well-designed cohort or case-control analytic studies

II-3 Evidence obtained from multiple time series designs

III Opinions of respected authorities

There is no comparative evidence for EVAR vs EVAS or FEVAR vs chEVAS
Will EVAS and chEVAS replace EVAR and FEVAR?

Place your €100 bets

No comparative data

No EVAS long term data

No chEVAS long term data

(Some) FEVAR long term data

ODDS 10:1
Will EVAS and chEVAS replace EVAR and FEVAR?

Place your €100 bets

ODDS 100:1

No comparative data
No EVAS long term data
No chEVAS long term data
(Some) FEVAR long term data
My argument

EVAR is an imperfect technique, which has reached its full potential.

FEVAR is a complex, flawed technique, which benefits few patients.

EVAS/chEVAS is the only endovascular alternative to EVAR/FEVAR.

Results of EVAS/chEVAS suggest you should place your bet NOW!
Does anybody recognise these pictures?
Does anybody recognise these pictures?

- Same principle as current EVAR
- Same implantation technique
- Marginal gains over time
- Stent design
- Technique
- Imaging
- Patient selection

The concept has not changed

*Parodi, Palmaz & Barone, Ann Vasc Surg, 1991*
Problems with EVAR

Increased life expectancy\(^1\)

Higher long term mortality than open repair\(^2\)

Late failure due to concept, not technique or materials

\(^1\)Office of National Statistics. National Life Tables – UK.
\(^2\)Patel et al., Charing Cross International Symposium, 27th April 2017
Why does EVAR fail?

1Antoniou et al., JEVT 2015
EVAS

No space for endoleaks

No modularity
The EVAS Forward registry
Freedom from endoleak

SURVIVAL ESTIMATES: At Risk

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Thompson MM. Charing Cross, April 2016
The EVAS Forward registry

Survival

Thompson MM. Charing Cross, April 2016
Problems with FEVAR

Limited applicability (high turn-down rate)

Complex intervention\(^1\)

High 30 day mortality for zone 6 repairs\(^1-2\)

Cost

Temporal constraints

No conclusive advantage vs open repair\(^3\)

\(^1\)BSET & Globalstar, Circulation 2012
\(^2\)Patel et al., JVS 2015
\(^3\)Rao et al., JVS 2015
FEVAR/BEVAR in Liverpool
Proximal landing zone - last 50 cases

<table>
<thead>
<tr>
<th>N</th>
<th>FEVAR/BEVAR</th>
<th>Configuration</th>
<th>Zone</th>
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<td>11</td>
<td>BEVAR</td>
<td>4B/F</td>
<td>&lt;6</td>
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<tr>
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<td>3F 1S</td>
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30-d mortality of “zone 6” FEVAR

BSET/Globalstar\(^1\)  9.4%
Patel et al.\(^2\)      24%

\(^1\)BSET & Globalstar, Circulation 2012  
\(^2\)Patel et al., JVS 2015
chEVAS
154 AAAs in ASCEND registry

30 day all cause mortality

2.8%

30 day mortality for zone 6-7 chEVAS

0%

1y freedom from aneurysm related mortality

94.3%
chEVAS
154 AAAs in ASCEND registry

### All Endoleak

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<th>Total</th>
<th>Type Ia</th>
<th>Type Ib</th>
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<td>0.6%</td>
<td>1.3%</td>
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<tr>
<td>Late (136)</td>
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<td>2.9%</td>
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### Type 1a Endoleak

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<td>Late (136)</td>
<td>2.9%</td>
<td>5.2%</td>
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<td>2.9%</td>
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**Thompson MM. Charing Cross, April 2016**
chEVAS
154 AAAs in ASCEND registry

Persistent endoleaks

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<tr>
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Place your bets now