Towards 15 year results of the EVAR trials and individual patient data (IPD) meta analysis with the DREAM, ACE and OVER Trials

Roger Greenhalgh

No disclosures

IPD results CX 2016

Combines actual results of EVAR, DREAM, ACE and OVER

Supported by all 4 trial management committees and principal investigators

DREAM – Jan Blankensteijn
ACE – Jean-Pierre Becquemin
OVER – Frank Lederle

Datasets at Charing Cross, Imperial College
Statistical analysis at University of Cambridge

Follow-up of 4 RCTs

EVAR 1
1,252
>5.5cm
5y

DREAM
351
>5.0cm
8y 9y 10y 15y

ACE
316
>5.0cm

OVER
881
>5.0cm

The length of follow up for each study:

- EVAR 1: 15 years
- DREAM: 6 years
- ACE: 3 years
- OVER: 9 years

The mean follow-up time to be used for the meta-analysis is 4.7 years

The common variables are to be chosen from the following but have not yet been finalised:

- Age
- Sex
- BMI
- Diabetes
- Smoking history
- ABPI (except ACE)
- Creatinine
- Previous history of angina/MI
- Max AAA diameter
- AAA neck diameter
- AAA neck length

EVAR 15 year follow-up

Primary objective: Aneurysm related mortality
Secondary objectives: All-cause mortality, complications and re-interventions, secondary rupture rates and costs.

We obtained the follow up for 68% of patients with EVAR and 34% with Open Repair

Hospital Episode Statistics (HES) data has been obtained in 663 patients with EVAR 1
Aneurysm-related mortality

>50% of aneurysm-related mortality >30d attributable to endograft rupture

8 year KM estimates

### Number at risk

<table>
<thead>
<tr>
<th></th>
<th>EVAR</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>626</td>
<td>626</td>
</tr>
<tr>
<td>2 years</td>
<td>543</td>
<td>534</td>
</tr>
<tr>
<td>3 years</td>
<td>472</td>
<td>461</td>
</tr>
<tr>
<td>4 years</td>
<td>312</td>
<td>301</td>
</tr>
<tr>
<td>5 years</td>
<td>101</td>
<td>109</td>
</tr>
<tr>
<td>6 years</td>
<td>101</td>
<td>109</td>
</tr>
<tr>
<td>7 years</td>
<td>101</td>
<td>109</td>
</tr>
<tr>
<td>8 years</td>
<td>101</td>
<td>109</td>
</tr>
</tbody>
</table>

### Percentage surviving without AAA death

<table>
<thead>
<tr>
<th>Time from randomisation (years)</th>
<th>EVAR</th>
<th>Open</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 2009

- 626 EVAR patients
- 365 still alive

### 2014

- 626 EVAR patients
- 626 Open repair patients
- 361 still alive

### 2014 EVAR

- Local follow-up 290 (46%)
- Still alive without follow-up 30 (6%)
- Dead without follow-up 87 (24%)

### 2014 Open repair

- Local follow-up 133 (21%)
- Alive without follow-up 96 (15%)
- Dead without follow-up 144 (46%)