Preventive Angioplasty in Myocardial Infarction Trial

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Trial flow diagram

Acute STEMI

Successful Infarct-artery PCI

Multivessel Disease
(>50% stenosis in noninfarct-artery suitable for PCI)

Randomise

600 (target)

300 Preventive PCI

300 No Preventive PCI

Exclusions
- Previous CABG
- Cardiogenic Shock
- Left main stem >50%
- Chronic total occlusion

Follow-up at 6 weeks and then annually
Primary trial outcome

One or more of the following:

- Cardiac death
- Nonfatal myocardial infarction
- Refractory angina with evidence of ischaemia
Cardiac Death, Nonfatal MI or Refractory Angina in patients having infarct-artery PCI

Wald DS et al. NEJM 2013:369:1115-23

Hazard Ratio 0.35 (95% CI 0.21 to 0.58), p<0.001

Risk Reduction 65%

Preventive PCI n=234

No Preventive PCI n=231
Cardiac Death, Nonfatal MI or Refractory Angina in patients having infarct-artery PCI

Wald DS et al. NEJM 2013:369:1115-23

Hazard Ratio 0.36 (95% CI 0.18 to 0.73), p=0.004

Risk Reduction 64%

Preventive PCI n=234

No Preventive PCI n=231
Early Benefit

Proportion without any primary outcome

Months since randomisation

Hazard Ratio 0.35 (95% CI 0.21 to 0.58)

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Repeat Revascularisation

Hazard Ratio 0.30
(95% CI 0.17 to 0.52),
p<0.001

Risk Reduction 70%

Preventive PCI:
n=234
16

No Preventive PCI:
n=231
46
## Baseline factors

<table>
<thead>
<tr>
<th>Baseline factor</th>
<th>Preventive PCI</th>
<th>No Preventive PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (yrs)</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Smoker (%)</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Diabetes (%)</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>Prior MI or stroke (%)</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>3 Vessel Disease (%)</td>
<td>39</td>
<td>33</td>
</tr>
</tbody>
</table>

Wald DS et al. NEJM 2013:369:1115-23
## Procedure-related factors

<table>
<thead>
<tr>
<th></th>
<th>Preventive PCI</th>
<th>No Preventive PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug-eluting stent (%)</td>
<td>63</td>
<td>58</td>
</tr>
<tr>
<td>IIb IIIa / Bivalirudin (%)</td>
<td>79</td>
<td>78</td>
</tr>
<tr>
<td>Radial artery access (%)</td>
<td>80</td>
<td>84</td>
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</tbody>
</table>

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## Post randomisation medical therapy

<table>
<thead>
<tr>
<th></th>
<th>Preventive PCI</th>
<th>No Preventive PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin + clopidogrel, prasugrel or ticagrelor</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Statin</td>
<td>95%</td>
<td>97%</td>
</tr>
<tr>
<td>Beta-blocker</td>
<td>88%</td>
<td>92%</td>
</tr>
<tr>
<td>ACE Inhibitor or ARB</td>
<td>93%</td>
<td>91%</td>
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</tbody>
</table>

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**Procedure time and radiation exposure**

<table>
<thead>
<tr>
<th></th>
<th>Preventive PCI</th>
<th>No Preventive PCI</th>
<th>Increase</th>
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</thead>
<tbody>
<tr>
<td>Procedure time (minutes)</td>
<td>63</td>
<td>45</td>
<td>40%</td>
</tr>
<tr>
<td>Radiation (Gycm²)</td>
<td>90</td>
<td>71</td>
<td>27%</td>
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</tbody>
</table>

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