Stroke and death rates (Early and late) after CAS are higher than the randomized controlled trials (RCTs) would indicate. Therefore, we should be less aggressive with our use of CAS – particularly in the elderly and Asymptomatic patients.

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Risk of CAS vs. CEA from 21 registries
Symptomatic average risk patients

Early outcomes in CAS vs. CEA for Asymptomatic
Periprocedural stroke and death

• Society for Vascular Surgery Registry n = 8640
• Adjusted CAS 4.3% vs. CEA 2.2% ¹
• Unadjusted: CAS 11.6%
Some adjustment!

In-hospital stroke/death rates for asymptomatics
• n = 24 004 1.8% with CEA, 2.5% with CAS¹
• n = 42 577 1.8% with CEA, 4.1% with CAS²

<table>
<thead>
<tr>
<th>Outcomes at 1 year (87% asymptomatic)</th>
<th>CAS (%) (n=737)</th>
<th>CEA (%) (n=6724)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke/Death</td>
<td>16.7%</td>
<td>11%</td>
<td>&lt;0.001</td>
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</table>

Early and late outcomes with CAS in Medicare
• CAS in 21 603 Medicare beneficiaries 2005-2009¹
• 30-day mortality 1.7%, stroke or transient ischemic attack 3.3%. MI 2.5%

“Treating the artery, not the patient”²

Decline in stroke risk in ACS
Severity of stenosis does not matter

Risk of CAS vs. CEA from 21 registries
- Asymptomatic stenosis; average risk patients

Not a ticking time bomb
The Circle of Willis prevents cerebral ischemia at the time of occlusion
Risk of stroke at the time of a new ICA occlusion: 0.3%

Percent stenosis did not predict risk
Survival after the index carotid occlusion free of ipsilateral stroke or TIA, death from ipsilateral stroke, or death from unknown cause

Causes of death after ICA occlusion
These will not be prevented by CAS or CEA!
Conclusions

- CEA is indicated for symptomatic severe carotid stenosis
- CAS is indicated for symptomatic severe stenosis with special features
  - High bifurcation, previous radiation, repeat surgery, high medical risk, younger patients
- CEA or CAS are only indicated for asymptomatic stenosis in patients with high-risk plaques:
  - Microemboli on TCD, intraplaque hemorrhage on MRI, hot plaques on PET/CT, reduced CBF reserve

Intensive medical therapy

- Is needed for all patients with carotid stenosis
- Is the best treatment for 90% of patients with asymptomatic stenosis
- Routine stenting or endarterectomy is NOT WARRANTED for asymptomatic stenosis

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