

The logo for LINC (Leipzig International Network for Carotid Interventions) features the letters 'LINC' in a white, sans-serif font. The letters are positioned over a stylized graphic of three curved, overlapping brushstrokes in dark blue, red, and yellow. The background of the slide is light blue with large, faint, curved brushstrokes in shades of blue and grey.

LINC

Status update on the ongoing trials looking at asymptomatic carotid stenosis

Alison Halliday
Professor of Vascular Surgery,
University of Oxford,
Immediate Past President, European Society for Vascular
Surgery

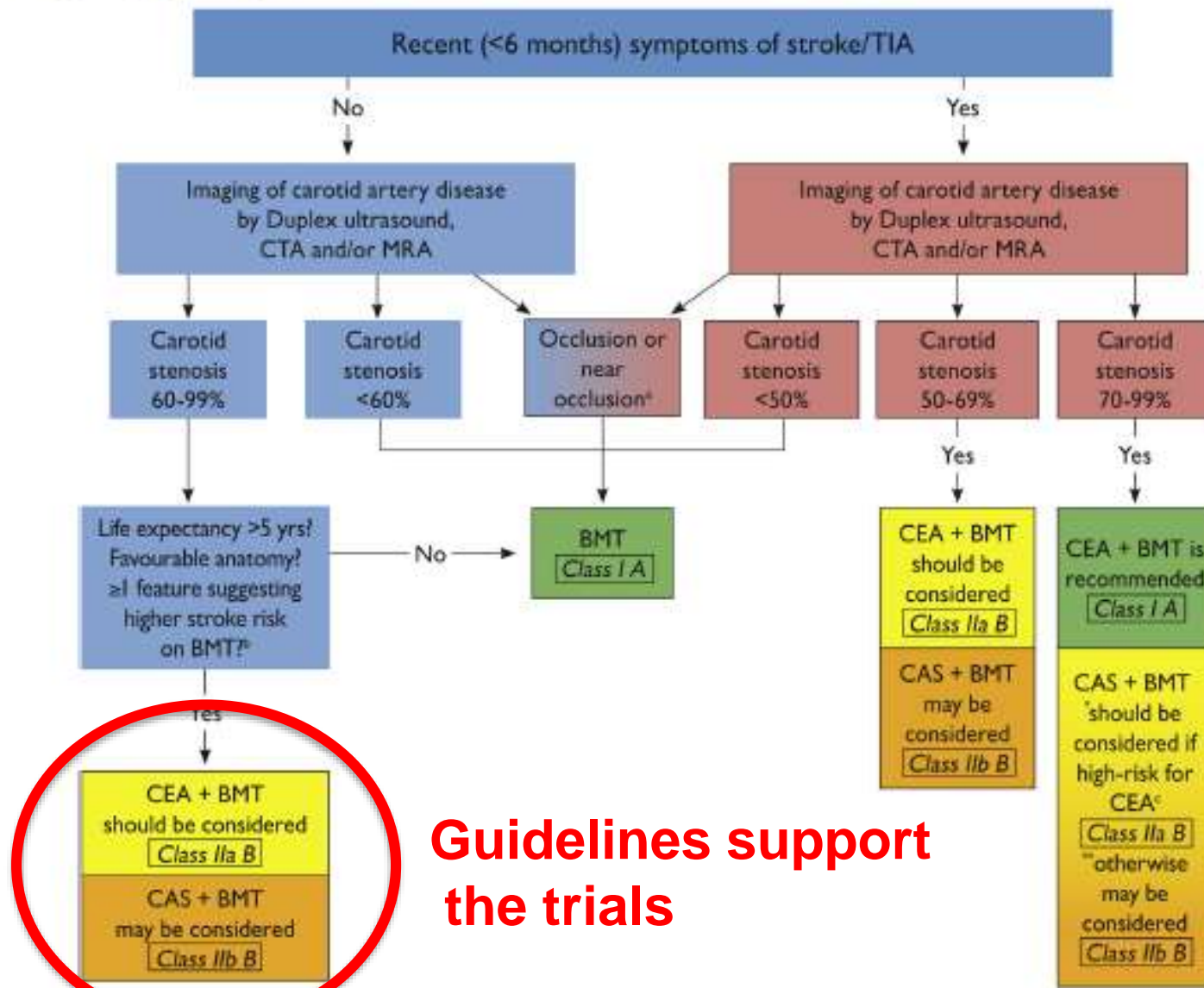
LINC, Leipzig
Room 3 Technical Forum
9.18-9.23, 22nd January 2019

Disclosure

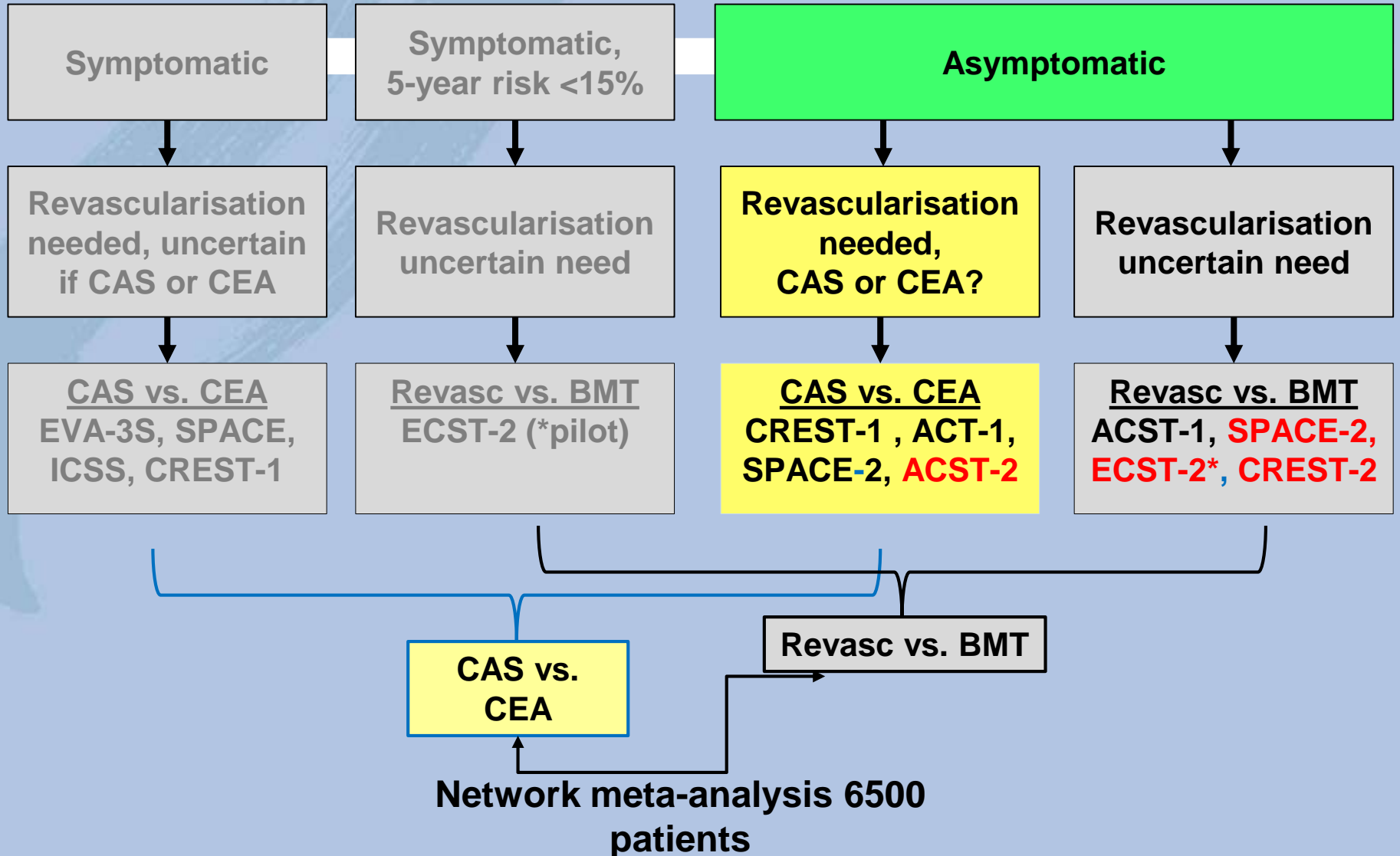
Speaker name: Alison Halliday

I do not have any potential conflict of interest

2017 Carotid and Vertebral Artery Disease: ESVS Clinical Practice Guidelines



Trials of CEA and CAS



Ongoing Trials of Asymptomatic stenosis

6500 patients

- **SPACE2** – complete, in follow up, **500** patients
Tilman Reiff - presentation at Munich Conference, Dec 2018
'Stroke and TIA rates at one year in SPACE-2: BMT vs. CEA versus CAS in asymptomatic carotid stenosis'
- **ECST-2** – pilot, **337** patients by 5/18 no results yet
symptomatic or asymptomatic moderate or severe carotid stenosis at low or intermediate risk of future stroke
- **CREST 2** – recruiting, now **1266/2480** patients
two trials (CEA vs Medical treatment alone, CAS vs same, funded to 4 yr f-up)
- **ACST-2** – nearing completion **3160/3600**
CEA vs CAS in patients thought to need intervention

CREST 2 – about halfway there

CREST-2 Study Center Locations

To find a center near you, go to the [Locations Page \(/locations.html\)](#). Check back often for newly added states.



119 CREST-2 Centers
have enrolled a total of

1,266 of 2,480
CREST-2 Participants

CREST-2 is seeking 2,480 participants across the United States and Canada to be in this study.



ACST-2 trial (acst-2.org)



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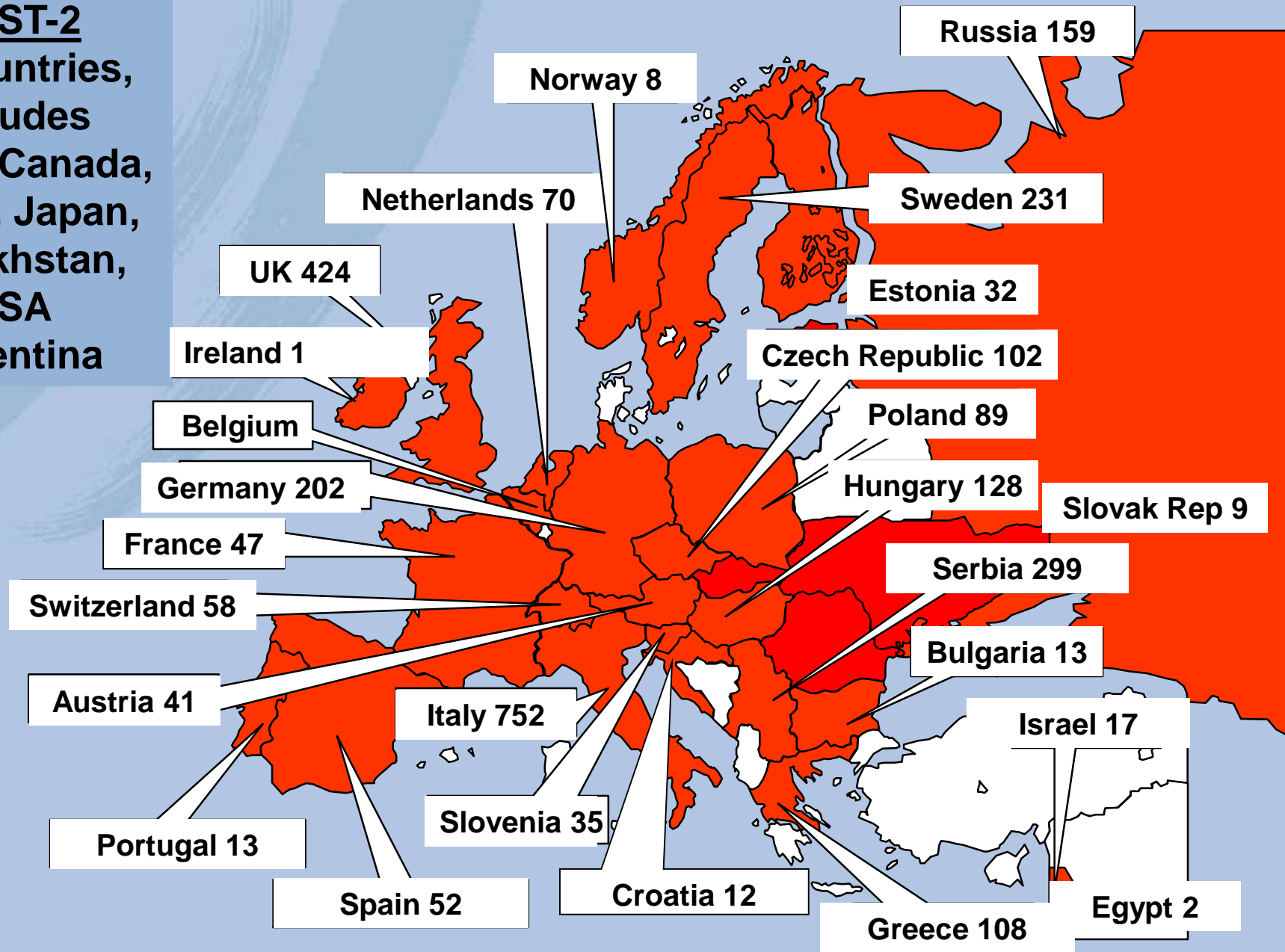
Asymptomatic Carotid Surgery Trial (ACST-2)

ACST-2 (ISRCTN21144362) is an international randomised trial, coordinated by The ACST-2 office at The University of Oxford, comparing [carotid endarterectomy](#) (CEA) with [carotid stenting](#) (CAS) for long-term stroke prevention.

Patients in ACST-2 have tight asymptomatic carotid stenosis. We are comparing both the immediate hazards of the procedures when carried out by experienced doctors and the subsequent stroke rates over the next 5 to 10 years.

ACST-2

33 countries,
includes
Brazil, Canada,
China, Japan,
Kazakhstan,
USA
Argentina



ACST-2 Recruitment target = 3600

**3173
(88%)**

Mean follow-up

CEA: 4.0 person-years

CAS: 4.0 person-years



ACST-2 CEA vs CAS



Collaborators are free to use their usual techniques



GA or LA; Primary or patch closure... **Any CE marked stent. CPD not mandated**



ACST-2 Medical therapy at Entry

81% lipid-lowering drugs

85% anti-hypertensive therapy

96% anti-thrombotic(anti-platelet/anti-coagulant)

**Good long-term compliance
(drugs + doses ascertained yearly)**



CEA in ACST-2: Dec 2018



Anaesthetic	GA 60%	LA 40%	Total (n=1434)
Patch	52%	29%	43%
Shunt use	28%	8%	20%



Modern CAS therapy in ACST-2: Dec 2018

Stent use

Wallstent (<i>Closed</i>) (44%)	355
Xact	218
Adapt	10
Precise (<i>Open</i>) (33%)	178
Protégé® RX	127
RX Acculink	120
ViVEXX	9
Zilver	7
Cristallo Ideale (<i>Hybrid</i>) (14%)	175
Sinus Carotid Conical RX	10
Mer	1
Roadsaver (<i>Membrane</i>) (9%)	79
CGuard	42

CPD use

Filter (68%)	Filterwire	285
	Emboshield	275
	Spider	214
	Accunet	77
	AngioGuard	49
	FiberNet	1
	Wirion System	1
Proximal occlusion (17%)	Moma	193
	Gore Flow Reversal	28
	T CAR	1
Distal balloon (<1%)	Twin One	6
	Viatrac	2
None (15%)		199
Total		1331

ACST-2 Procedural hazards (CEA+CAS) much lower than symptomatic trials

Disabling and fatal Stroke \leq 30 days

1.0%

**Lower than in previous
trial of CEA :
1.7% (ACST-1)**

**Procedural competence,
interventions are low-risk**

ACST-2 and stenting safety

- **Medical therapy in ACST-2 is good (>80%)**
Moderate and high statin regimens favoured
- **Cerebral protection widely used (85%)**
- **Flow reversal quite common (17%)**
Mo.Ma often used
- **Closed cell stents still predominate (44%)**
Membrane-mesh covered stents emerging

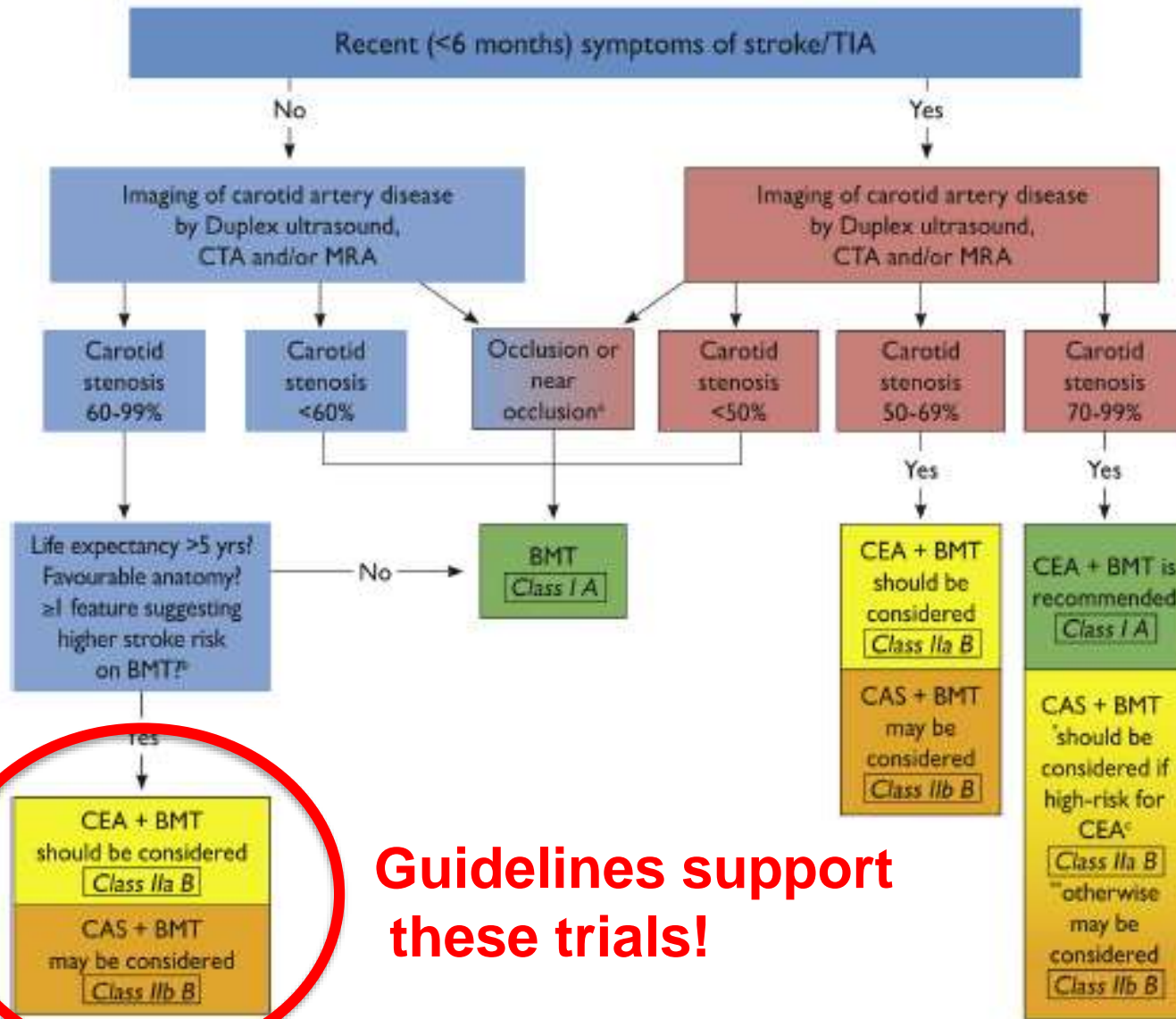


ACST-2 results expected 2021



**427 more
Patients
needed!**

2017 Carotid and Vertebral Artery Disease: Follow the Guidelines – randomise!



Guidelines support these trials!

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