



Rapid Intervention with Glyceryl trinitrate in Hypertensive stroke Trial-2 (RIGHT-2):

Safety and efficacy of transdermal glyceryl trinitrate, a nitric oxide donor, and of the feasibility of a multicentre ambulance-based stroke trial

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RATIONALE


- High blood pressure (BP) is common in acute stroke and is associated with poor outcome
- Previous hospital-based trials testing the effect of lowering BP have been inconclusive.
- Glyceryl trinitrate (GTN), a nitric oxide donor, is a candidate treatment for acute stroke; it lowers blood pressure, does not alter cerebral blood flow or platelet function, and is neuroprotective in experimental stroke.
- The PIL-FAST,¹ FAST-Mag² and RIGHT³ trials confirmed the feasibility of performing ambulance-based stroke trials in different healthcare settings.
- Both RIGHT³ and ENOS-early⁴ (subgroup of patients recruited <6 hours) showed that transdermal GTN improved functional outcome.
- Based on these results, RIGHT-2 is testing the safety and efficacy of transdermal GTN in 1050 patients in the pre-hospital setting.

METHODS

- Paramedics from 8 UK ambulance services serving 54 acute hospital stroke services screened, consented, randomised and treated 1149 FAST-positive patients with systolic BP >120 mmHg presenting within 4 hours of onset.
- Treatment comprised GTN or sham patch, initiated in the ambulance and continued daily in hospital for 3 days.
- The primary outcome is the modified Rankin Scale at day 90.
- Secondary outcomes include vascular events, disability, quality of life, mood and cognition.
- Neuroimaging and blood biomarkers will examine potential mechanisms of action.
- Recruitment commenced in **quarter 3, 2015**, results expected December 2018.
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- The trial is funded by British Heart Foundation and sponsored by the University of Nottingham.



- YAS
- EMAS
- WAS
- WMAS
- EEAST
- LAS
- SCAS
- SWAST

		East Midlands Ambulance Service	South Western Ambulance Service	Yorkshire Ambulance Service	East of England Ambulance Service	Welsh Ambulance Service	London Ambulance Service	West Midlands Ambulance Service	South Central Ambulance Service
	Live	24 Sep 15	9 Oct 15	30 Nov 15	2 Feb 16	6 Oct 16	9 Jan 2017	1 Mar 2017	1 Mar 2018
	Paramedics Trained	193	313	177	145	165	326	128	63
	Ambulance Stations	63	102	63	89	37	26	15	3
	Hospitals	9	14	10	5	5	5	6	1
Total	1149	218	265	153	178	89	202	37	7

References

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4. Woodhouse L, Scutt P, Krishnan K, et al. Effect of hyperacute administration (within 6 hours) of transdermal glyceryl trinitrate, a nitric oxide donor, on outcome after stroke: subgroup analysis of the Efficacy of Nitric Oxide in Stroke (ENOS) trial. Stroke 2015; 46(11): 3194-201.