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# 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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ISRCTN: 26986053



### 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,<sup>1</sup> FAST-Mag<sup>2</sup> and RIGHT<sup>3</sup> trials confirmed the feasibility of performing ambulance-based stroke trials in different healthcare settings.
- Both RIGHT<sup>3</sup> and ENOS-early<sup>4</sup> (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 850 patients in the pre-hospital setting.

### METHODS

- Paramedics from 8 UK ambulance services serving 53 acute hospital stroke services screen, consent, randomise and treat 1050 FAST-positive patients with systolic BP >120 mmHg presenting within 4 hours of onset.
- Treatment comprises 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**.
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- The trial is funded by British Heart Foundation and sponsored by the University of Nottingham



	RIGHT-2	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
<b>Live</b>		24 Sep 15	9 Oct 15	30 Nov 15	2 Feb 16	6 Oct 16	9 Jan 2017	1 Mar 2017	1 Mar 2018
<b>Paramedics Trained</b>		193	313	177	145	165	325	124	61
<b>Ambulance Stations Live</b>		63	102	63	89	37	26	15	3
<b>Hospitals Live</b>		9	13	10	5	4	3	4	1
<b>Total</b>	<b>1131</b>	<b>214</b>	<b>261</b>	<b>151</b>	<b>178</b>	<b>86</b>	<b>201</b>	<b>36</b>	<b>4</b>

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