Improving Pre-hospital Stroke Care
Craig Henderson, Katrina Brennan MBE, Professor Martin Dennis

Aims
As part of the NHS Scotland Stroke Improvement Programme, the Scottish Ambulance Service aimed to collaborate with key stakeholders on a national pre-hospital stroke improvement programme. Objectives were identified and agreed by the Service and the National Advisory Committee for Stroke at the Scottish Government that would ensure improvements in Ambulance Clinician education, skills and knowledge surrounding stroke and a standardised clinical pathway that would ensure rapid identification, treatment and transportation to the Emergency Department (ED) following stroke.

The Service also aimed to introduce a clinical quality care bundle to ensure that all ambulance clinicians were delivering consistent, evidence-based and best practice care. Our aim is that 90% of stroke patients receive the pre-hospital stroke bundle.

Methodology
The Service, facilitated by the National Advisory Committee for Stroke, established effective and pro-active partnerships with the Stroke Managed Clinical Networks (MCNs) to help support and implement improvements in pre-hospital stroke care and to ensure that EDs and Stroke units were included in discussions and aware of key dates and milestones as the project progressed.

An ambulance specific stroke education programme was written collaboratively by the members of the MCN network and the Service. The programme is delivered to every student Technician, is available on-line for Service clinicians and will form part of the upcoming mandatory training courses for all operational staff.

Emphasis was placed heavily on the introduction of a ‘Regional Stroke Network’ comprised of local managers who now have pre-hospital stroke care as part of their portfolio. This network has supported development of a clinical feedback platform that will provide appropriate and constructive clinical feedback to all operational crews following interactions with a pre-hospital stroke patient.

Outcome/Results
As a measurement for pre-hospital stroke care, the Service introduced an evidence-based clinical quality care bundle for pre-hospital stroke. By ensuring reliable implementation of this bundle, the Service have established themselves as key members of the hyper acute stroke clinical team, playing a pivotal role in the early identification and treatment of stroke patients who can go on to receive thrombolysis assessment at hospital.

With ‘in-cab technology’ to support our clinicians in the deployment of our national stroke pathway, the Service can proudly report reliable implementation of the clinical quality bundle (see chart) with the rate consistently above the 90% target set by the Scottish Government.

Hyper Acute Stroke: Clinical Quality Care Bundle - implementation 1 Jan - 27 May 2018

[Graph showing bundle implementation rate over 20 weeks, with target line set at 90% and implementation rate consistently above this target]