

Innovation Brief

Medical Technology Innovation Dynamic Purchasing System – LVOne supplied from Pockit diagnostics Ltd, trading as Upfront time is life.

Summary

Disruptive Innovation

LVOne is a rapid blood test to help identify large vessel occlusion (LVO) strokes in the pre-hospital setting. These strokes are associated with severe neurological deficits, high disability rates, and increased mortality if not treated rapidly.

It is a non-automated in vitro diagnostic medical device intended to be used for the semi-quantitative measurement of D-dimer and the qualitative measurement of Glial Fibrillary Acidic Protein (GFAP) in human capillary whole blood.

This document is intended to inform clinical stakeholders and procurement teams about innovative products that have undergone a clinical review and are now accessible through NHS Supply Chain.

Products featured in this brief may be classified as:

- Disruptive Innovations
 - A disruptive innovation is novel.
 - It should offer improvements compared to the existing provision of care.
 - The proposed format should not exist elsewhere (either within or beyond the health and care sector)

Note: While robust evidence or validated savings may not yet be available, early data and clinical insights support the potential for patient and system-level improvements.

Departments / stakeholders for engagement

- NHS procurement teams
- Integrated care boards
- Point of Care Testing Coordinators
- Emergency Departments
- Ambulance Trusts
- Stroke Services

Opportunity

The LVOne presents an opportunity to enhance care by:

- **Faster identification of Large Vessel Occlusion (LVO) stroke** at the point of care using a simple finger-prick blood sample, providing results in approximately 10 minutes and supporting earlier treatment decisions.

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- **Improved access to specialist stroke treatment** by helping identify patients who may benefit from direct transfer to thrombectomy-capable stroke centres, reducing delays in definitive care.
- **Potential reduction in stroke-related disability and mortality** through earlier diagnosis and treatment. Health Innovation Network reports that faster identification of LVO stroke can save significant treatment time and improve chances of recovery.
- **Supports pre-hospital and emergency care pathways** because the test is portable, requires minimal infrastructure, and is designed for use in ambulances, urgent treatment centres, and emergency departments.

Product overview

LVOne is a rapid point-of-care blood test developed by UpFront Diagnostics to assist in the identification of Large Vessel Occlusion (LVO) ischaemic stroke, one of the most severe forms of stroke. The test measures two blood biomarkers, Glial Fibrillary Acidic Protein (GFAP) and D-dimer, from a finger-prick blood sample and delivers a result within minutes.

Measurement of D-dimer and GFAP is intended to be used in combination with clinical symptom scales for aid in the diagnosis of acute ischaemic stroke due to large vessel occlusion in adult patients evaluated for suspected stroke.



Clinical relevance

- Early identification of LVO stroke is clinically important because these patients may require urgent mechanical thrombectomy and specialist stroke-centre management
- Traditional confirmation relies on brain imaging, which is typically only available after hospital arrival. LVOne aims to support earlier triage decisions before imaging is available

Additional benefits

- Simple finger-prick blood collection with no requirement for advanced laboratory infrastructure.
- Portable and suitable for use in ambulances and emergency settings.
- May reduce unnecessary inter-hospital transfers and accelerate routing to thrombectomy-capable centres.
- Potential system-wide benefits through reduced treatment delays, lower disability burden, and decreased healthcare resource utilisation.

Cautions

- LVOne is intended as a decision-support and triage aid, not a replacement for clinical

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assessment, neuroimaging, or specialist stroke evaluation. Definitive diagnosis of stroke still requires established clinical and imaging pathways.

- The test is specifically designed to identify LVO stroke and should be interpreted within the broader clinical context, including neurological examination and recognised stroke assessment tools.

Pathway change

- Consider incorporating LVOne into pre-hospital stroke triage pathways, particularly within ambulance services assessing suspected stroke patients.
- Develop protocols enabling patients with a positive LVOne result and compatible clinical presentation to be considered for direct transfer to comprehensive stroke centres where thrombectomy services are available.
- Provide training for ambulance clinicians and emergency department staff on sample collection, result interpretation, and integration with existing stroke scales.
- Ensure local stroke pathways clearly define how LVOne results complement, rather than replace, standard clinical assessment and imaging.

Supply details

Complete expression of interest form Dynamic Purchasing System (DPS) For Medical Technology Innovation - NHS Supply Chain

Route - eDirect Supplier – Upfront time is life.

Item name	Package type	Unit of issue
LVOne. The product is provided in branded white boxes, which contain 20x plastic bags, each bag containing all the accessory for 1 test.	Box	20

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