

NHS Lanarkshire Stroke MCN Patent Foramen Ovale (PFO) Closure Pathway



TARGET AUDIENCE	Stroke Physicians and cardiologists
PATIENT GROUP	Ischaemic Stroke Patients

Clinical Guidelines Summary

This pathway is based on the agreed WoS guidance by Prof Mark Barber (Stroke, NHS Lanarkshire), Prof Keith Muir (Stroke Neurology, Queen Elizabeth University Hospital) and Dr Niki Walker (Adult Congenital Cardiology, Golden Jubilee National Hospital) and evidence from the positive Patent Foramen Ovale (PFO) closure trials of 2017 and 2018. All patients being referred for consideration of PFO closure will generally meet these criteria. All PFO closure referrals will go to GJNH through the PFO clinic run by Prof Mark Barber.

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Age <60 years old with Embolic Stroke of Uncertain Source (not TIA) in last 6 months



Minimum Investigation prior to referral to Mark Barber:

Brain Imaging (MRI preferred, but CT acceptable if large acute or subacute infarct visible).

- small lacunar Infarctions would usually be an exclusion from PFO pathway

CTA or MRA to exclude alternative causes for stroke e.g. dissection

Cardiac Monitoring (minimum 48hours) to try to exclude AF as an alternative cause.

Bubble Transthoracic ECHO confirming moderate or large shunt

TOE if above confirmed – ideally prior to referral but can be arranged from MB clinic if problematic to arrange locally

'Young Stroke Bloods' to exclude alternative aetiology



Refer to stroke PFO clinic (Prof Mark Barber) via letter, email or phone call



Seen quickly at PFO clinic, review any imaging at University Hospital Monklands radiology MDT with stroke and radiology colleagues and seek cardiology opinion if required. See page 2 for list of some potential exclusions from onward referral



PFO Clinic will contact Safe Haven and Acute Medical Director to seek UNPAC funding



PFO clinic will refer Niki Walker and Elaine Muirhead for assessment at GJNH

Lead Author	Mark Barber	Date approved	15/07/2024
Version	4	Review Date	31/08/2026

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Some reasons why onward referral for PFO closure may not be appropriate:

- Patient Preference after counselling
- Lack of ischaemic stroke in appropriate territory on brain imaging
- Unfit/unwilling for potential anticoagulation (5% of cases will develop AF post procedure)
- Unfit/unwilling for long term antiplatelet use
- Need for anticoagulation for other reasons e.g. AF, unprovoked or recurrent Venous Thromboembolic Events (pending further trial evidence)
- Alternative cause for stroke found on completion of 'minimum investigation' list
- Other alternative explanation for stroke found e.g. recreational drug use, uncontrolled diabetes etc
- Age >60 years old (non evidence-based, other stroke aetiology more likely)

References/Evidence

DOI: 10.1056/NEJMoa1707404

DOI: 10.1056/NEJMoa1705915

DOI: 10.1056/NEJMoa1610057

DOI: 10.1016/j.jacc.2018.02.046

Appendices

1. Governance information for Guidance document

Lead Author(s):	Mark Barber
Endorsing Body:	Stroke MCN
Version Number:	4
Approval date	15/07/2024
Review Date:	August 2026
Responsible Person (if different from lead author)	

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Uncontrolled when printed - access the most up to date version on www.nhsguidelines.scot.nhs.uk

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CONSULTATION AND DISTRIBUTION RECORD	
Contributing Author / Authors	No new consultation carried out. This is effectively the third version of a guideline agreed several years ago.
Consultation Process / Stakeholders:	
Distribution	

CHANGE RECORD			
Date	Lead Author	Change	Version No.
		<i>e.g. Review, revise and update of policy in line with contemporary professional structures and practice</i>	1
			2
3.5.24	Barber	Edit as last version had expired	3
12.8.24	Barber	Edits at request of review team.	4
			5

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2. You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance

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