

Integrated Impact Assessment Report for Clinical Commissioning Policies				
Policy Reference Number	1770			
Policy Title	·	Percutaneous patent foramen ovale closure for the prevention of recurrent cerebral embolic stroke Proposal for routine commission		
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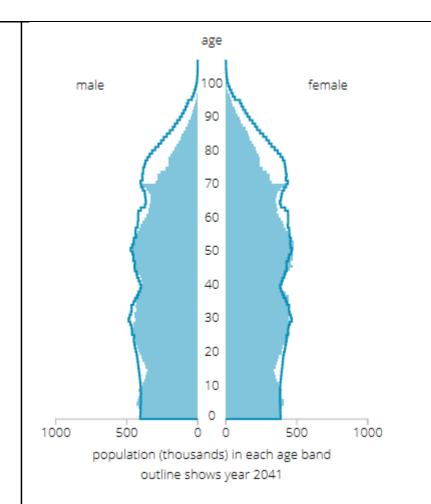
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About this Impact Assessment: instructions for completion and explanatory notes

- Each section is divided into themes.
- Each theme sets out a number of questions.
- All questions are answered by selecting a drop down option or including free text.
- Free text boxes are provided to enable succinct relevant commentary to be added which explains the rationale for response or assumption. Please limit responses to 3 sentences of explanatory text.
- Data in this document is either drawn from one of the relevant policy documents or a source for the information is provided.
- Where assumptions are included where data is not available, this is specified.

	Section A - Activity Impact
A1 Current Patient Population & Demography / Grown	th
A1.1 Prevalence of the disease/condition.	Approximately 25% of people have a foramen ovale which remains fully or partially open into adulthood (NICE IPG 472). In the UK, there are over 100,000 strokes each year, of which 85% are ischaemic (Stroke Association 2018). PFO is the most common association (40-50%) of cryptogenic stroke in patients younger than 55 years (Gonzalez-Alujas et al 2011, Tobis et al 2005). The lack of patient modifiable risk factors for cryptogenic stroke leads clinicians and patients to seek to modify risk factors such as PFO in order to reduce the risk of recurrence, in particular for patients who are unable to reduce their overall risk of stroke themselves (Li et al 2015). Source: NICE IPG 472, Gonzalez-Alujas et al 2011, Tobis et al 2005 and Li et al 2015.
A1.2 Number of patients currently eligible for the treatment according to the proposed policy commissioning criteria.	1500. Phasing is 800 patients in year 1 rising to 1500 in year 5 plus ONS growth Source: Epidemiology and clinical experience of the procedure PRIOR to and during CtE.
A1.3 Age group for which the treatment is proposed according to the policy commissioning criteria.	Adults 18 years and over
A1.4 Age distribution of the patient population eligible according to the proposed policy commissioning criteria	Patients between 18 and 60 years old Source: No trials involved patients above the age of 60. There is no persuasive body of evidence to support the use of PFO closure in patients with cryptogenic stroke over the age of 60 and indeed as this age range is reached the probability that stroke is due to occult / non-stenotic atheroma or AF rises substantially.

A1.5 How is the population currently distributed geographically?	Evenly If unevenly, estimate regional distribution by %:			
	North			
	Midlands & East			
	London			
	South			
	be an increase in the agir Please specify	ng population:		
	The population of England The projected growth varing growing age group (peoployears and by nearly 60% be seen in the groups bet proposition) they are not proposition.	d is projected to grow by 4.1 million (7.5%) by mid-2024. ies considerably by different age groups. The fastest-le aged 65 and over) is projected to grow by 20.4% over 10 over 25 years in England. However, although growth will tween 18 and 60 (the groups covered by this policy projected to grow as quickly. Therefore, although there will ms, the share of this age group of the total population is not significantly.		



Source: Office for National Statistics National Population Projections: 2016-based statistical bulletin 2017

A2 Future Patient Population & Demography

A2.1 Projected changes in the disease/condition epidemiology, such as incidence or prevalence (prior to applying the new policy) in 2, 5, and 10 years?	Increasing Source: The 2016 ONS population figures continue to show that there continues to be an overall increase in the population.		
A2.2 Are there likely to be changes in demography of the patient population and would this impact on activity/outcomes?	<u>No</u>		
A2.3 Expected net increase or decrease in the number	YR2 +/-	11	
of patients who will be eligible for the service, according to the proposed service specification commissioning	YR3 +/-	14	
criteria, per year in years 2-5 and 10?	YR4 +/-	15	
	YR5 +/-	17	
Are these numbers in line with ONS growth assumptions for the age specific population? If not please justify the growth assumptions made.	Source: Policy proposition and financial costing model Yes There will be a phasing of actual patients treated in years 1-3 due to the building capacity to deliver the service and increasing awareness and education of health professionals in primary and secondary care of access to the service, eligibility criteria and clinical benefits in stroke prevention. Year 1 is assumed to be limited 800 patients, year 2 1,100 and then 1,500 plus growth from Year 3 onwards in lir with ONS population growth.		
A3 Activity			
A3.1 What is the purpose of new policy?	Revise existi	ng policy (expa	nd or restrict an existing treatment threshold)

	Please specify NHSCB/A09/PS/a Patent Foramen Ovale (PFO) C Dated April 2013. The aim is to reduce the risk of	embolic stroke.
A3.2 What is the annual activity associated with the existing pathway for the eligible population?	None Please specify Procedure is not currently routinely commissioned	
A3.3 What is the estimated annual activity associated with the proposed policy proposition pathway for the eligible population?	It is estimated that each patient will require the act number of patients being 800 in year 1 rising to 15 Activity TBC	elow with the
A3.4 What is the estimated annual activity associated with the next best alternative comparator pathway for the eligible population? If the only alternative is the existing pathway, please state 'not applicable' and move to A4.	Not applicable	

A4.1 Existing pathway: Describe the relevant currently routinely commissioned: • Treatment or intervention • Patient pathway • Eligibility and/or uptake estimates.	Current treatments include anti-platelet or, in some cases, anti-coagulation medication. Surgical PFO closure in isolation is not considered clinically appropriate, although it can be undertaken as an addition to other open heart surgery.
A4.2. What are the current treatment access and stopping criteria?	Not applicable
A4.3 What percentage of the total eligible population is expected to: a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?	Not applicable
A5 Comparator (next best alternative treatment) Patie (NB: comparator/next best alternative does not refer to current paths	
A5.1 Next best comparator: Is there another 'next best' alternative treatment which is a relevant comparator? If yes, describe relevant Treatment or intervention Patient pathway Actual or estimated eligibility and uptake	No No

A5.2 What percentage of the total eligible population is estimated to: a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?	Not applicable
A6 New Patient Pathway	
A6.1 What percentage of the total eligible population is expected to: a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?	If not known, please specify a) 15 % b) 6% c) 6% d) 6% e) 6% If total eligible population is patients with a previous stroke: 15% of strokes are cryptogenic and 40% of these will be found to have a PFO (6%)
A6.2 Specify the nature and duration of the proposed new treatment or intervention.	Time limited For time limited treatments, specify frequency and/or duration. The procedure is usually carried out under local/general anaesthetic with the use of transoesophageal or intracardiac echocardiographic and fluoroscopy guidance. It requires placement of a catheter in the right femoral vein so that the device can be passed to the heart. It is then positioned across the PFO and deployed so that both ends of the channel are blocked. The duration of the procedure is approximately one hour. Transthoracic echocardiography should be performed prior to patient

	discharge to exclude any complications of the procedure. Anti-platelet, or in some patient's anti-coagulant drugs will usually be continued for 6 months post procedure and long term aspirin is often indicated.			
A7 Treatment Setting				
A7.1 How is this treatment delivered to the patient?	Select all that apply:			
	Emergency/Urgent care att	endance		
	Acute Trust: inpatient		\boxtimes	
	Acute Trust: day patient		\boxtimes	
	Acute Trust: outpatient		\boxtimes	
	Mental Health provider: inpatient			
	Mental Health provider: outpatient			
	Community setting			
	Homecare			
	Other			
A7.2 What is the current number of contracted	NORTH	0		
providers for the eligible population by region?	MIDLANDS & EAST	0		
	LONDON	0		
	SOUTH	0		
	The are no commissioned p	roviders of	the se	rvice

A7.3 Does the proposition require a change of delivery setting or capacity requirements?	yes Please specify: A national procurement intervention will be required to commission specialised/ tertiary cardiac centres to deliver the service.		
A8 Coding			
A8.1 Specify the datasets used to record the new	Select all that apply:		
patient pathway activity.	Aggregate Contract Monitoring *	\boxtimes	
*expected to be populated for all commissioned activity	Patient level contract monitoring	\boxtimes	
	Patient level drugs dataset		
	Patient level devices dataset	\boxtimes	
	Devices supply chain reconciliation dataset Secondary Usage Service (SUS+)		
	Mental Health Services DataSet (MHSDS)		
	National Return**		
	Clinical Database**	\boxtimes	
	Other**		
	**If National Return, Clinical database or other £100k per year for a National Registry has bee and finance model.		

A8.2 Specify how the activity related to the new patient pathway will be identified.	Select all that apply:			
	OPCS v4.8	\boxtimes		
	ICD10			
	Treatment function code			
	Main Speciality code			
	HRG			
	SNOMED			
	Clinical coding / terming methodology used by clinical profession			
AC 2 Identification Dules for Druggs	Not applicable			
A8.3 Identification Rules for Drugs: How are drug costs captured?	If the drug has already been specified in the current NHS England Drug List pleas specify drug name and drug indication: If the drug has NOT already been specified in the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed with the current NHS England Drug List please give details of action required and confirm that this has been discussed the current NHS England Drug List please give details of action required and confirm the current NHS England Drug List please give details of action required and confirm the current NHS England Drug List please give action the current NHS England Drug List please give action the current NHS England Drug List please give action the current NHS England Drug List please give action the current NHS England Drug List please give action the current NHS Engl			
	the pharmacy lead:	iiiii tilat tilis ilas beeli discussed witii		
A8.4 Identification Rules for Devices: How are device costs captured?	Already covered by an existing category of HCTED but not commissioned the Zero Cost Model If the device is covered by an existing category of HCTED please specify the Category (as per the National Tariff Payment System Guidance). Occluder Vascular Appendage and septal devices			

A8.5 Identification Rules for Activity: How are activity costs captured?	Already correctly captured by an existing specialised service line (NCBPS code within the PSS Tool If activity costs are already captured please specify the specialised service code and description (e.g. NCBPS01C Chemotherapy). NCBPS13X - Congenital Heart Disease (Adults) If activity costs are already captured please specify whether this service needs a separate code. No If the activity is captured but the service line needs amendment please specify whether the proposed amendments have been documented and agreed with the Identification Rules team. No If the activity is not captured please specify whether the proposed identification rules have been documented and agreed with the Identification Rules team.		
A9 Monitoring			
A9.1 Contracts Specify any new or revised data flow or data collection requirements, needed for inclusion in the NHS Standard Contract Information Schedule.	<u>None</u>		
A9.2 Excluded Drugs and Devices (not covered by	Select all that apply:		
the Zero Cost Model) For treatments which are tariff excluded drugs or devices not covered by the Zero Cost Model, specify the pharmacy or device monitoring required, for example reporting or use of prior approval systems.	Drugs or Device MDS	\boxtimes	
	Blueteq	\boxtimes	
	Other prior approval		

A9.3 Business intelligence	<u>No</u>
Is there potential for duplicate reporting?	
A9.4 Contract monitoring	<u>Yes</u>
Is this part of routine contract monitoring?	If yes, please specify contract monitoring requirement:
	Activity will be reported in line with Schedule 6 of the NHS Standard Contract
A9.5 Dashboard reporting	<u>No</u>
Specify whether a dashboard exists for the proposed intervention?	If yes, specify how routine performance monitoring data will be used for dashboard reporting.
	If no, will one be developed?
	Data will be collected through a National Registry
A9.6 NICE reporting Are there any directly applicable NICE or equivalent quality standards which need to be monitored in association with the new policy?	<u>No</u>
	Section B - Service Impact
B1 Service Organisation	
B1.1 Describe how the service is currently organised? (i.e. tertiary centres, networked provision etc.)	The service is not routinely commissioned Source: Clinical Commissioning Policy Statement: Patent Foramen Ovale (PFO) Closure April 2013 Reference: NHSCB/A09/PS/a

B1.2 Will the proposition change the way the commissioned service is organised?	Yes Please specify: Providers will be selected to p	provide the service when commissioned.	
B1.3 Will the proposition require a new approach to the organisation of care?	No change to delivery of care Please specify: Service delivery will be through current specialised cardiac interventional services. A lead in period will be required to build capacity to deliver the service and increase awareness and education of health professionals in primary and secondary care.		
B2 Geography & Access			
B2.1 Where do current referrals come from?	Select all that apply:		
	GP		
	Secondary care		
	Tertiary care		
	Other		
B2.2 What impact will the new policy have on the sources of referral?	No impact		
B2.3 Is the new policy likely to improve equity of access?	No impact		
	Source: Equalities Impact As	sessment	

B2.4 Is the new policy likely to improve equality of access and/or outcomes?	No impact Please specify: The new policy is likely to provide recurrent stroke prevention to patients with a clinically significant PFO who are at high risk of recurrent stroke. Source: NHSCB/A09/PS/a Clinical Commissioning Policy Statement: Patent Foramen Ovale (PFO) Closure Dated April 2013
B3 Implementation	
B3.1 Will commissioning or provider action be required before implementation of the proposition can occur?	Procurement action Please specify: There are currently no commissioned providers; a national procurement intervention will be required to commission centres to deliver the service.
B3.2 Time to implementation: Is a lead-in time required prior to implementation?	Yes - go to B3.3 If yes, specify the likely time to implementation: 12 months
B3.3 Time to implementation: If lead-in time is required prior to implementation, will an interim plan for implementation be required?	Yes If yes, outline the plan: An interim plan will be required. The criteria for this will need to be decided but may follow the example of LAAO and utilise the centres which were involved in the CtE programme.
B3.4 ls a change in provider physical infrastructure required?	No Please specify: The procedure can be delivered within current tertiary and specialised cardiac facilities

B3.5 Is a change in provider staffing required?	Yes Please specify: There may be a requirement to increase staff to deliver the new procedure				
B3.6 Are there new clinical dependency and/or adjacency requirements that would need to be in place?	No Please specify: All the specialities within a tertiary cardiac and cardiothoracic centre in line with current specialised cardiology service specifications.				
B3.7 Are there changes in the support services that need to be in place?	<u>No</u>				
B3.8 Is there a change in provider and/or inter-provider governance required? (e.g. ODN arrangements / prime contractor)	No Please specify: Services are not currently commissioned				
B3.9 Is there likely to be either an increase or decrease in the number of commissioned providers? If yes,	Increase Please complete table:				
specify the current and estimated number of providers required in each region	Region	Current no. of providers	Future State expected range	Provisional or confirmed	
	North	0	5	<u>P</u>	
	Midlands & East	0	5	<u>P</u>	
	London	0	5	<u>P</u>	
	South	0	5	<u>P</u>	
	Total	0	20	<u>P</u>	

	Please specify: The intervention is not routinely commissioned but future selected from current specialised tertiary cardiac centres both providing the procedure and the service.	•			
B3.10 Specify how revised provision will be secured by	Select all that apply:				
NHS England as the responsible commissioner.	Publication and notification of new policy				
	Market intervention required				
	Competitive selection process to secure increase or decrease provider configuration				
	Price-based selection process to maximise cost effectiveness				
	Any qualified provider				
	National Commercial Agreements e.g. drugs, devices				
	Procurement				
	Other				
	Please specify: Future provision will be secured through procurement. T included in the HCTED programme.	he device will need to be			
B4 Place-based Commissioning					
B4.1 Is this service currently subject to, or planned for, place-based commissioning arrangements? (e.g. future CCG lead, devolved commissioning arrangements, STPs)	<u>No</u>				

	Section C -	Finance Impact				
C1 Tariff/Pricing						
C1.1 How is the service contracted and/or charged?		Select all that apply:				
Only specify for the relevant section of the patient pathway		Not separately charged – part of local or national tariffs				
paimay	Drugs	Excluded from tariff – pass through				
		Excluded from tariff - other				
		Not separately charged – part of local or national tariffs				
	Davissa	Excluded from tariff (excluding ZCM) – pass through	\boxtimes			
	Devices	Excluded from tariff (excluding ZCM) – other				
		Via Zero Cost Model				
		Paid entirely by National Tariffs	\boxtimes			
		Paid entirely by Local Tariffs				
		Partially paid by National Tariffs				
	Activity	Partially paid by Local Tariffs				
		Part/fully paid under a Block arrangement				
		Part/fully paid under Pass-Through arrangements				
		Part/fully paid under Other arrangements				
C1.2 Drug Costs Where not included in national or local tariffs, list each drug or combination, dosage, quantity, list price	Not applica	able				

including VAT if applicable and any other key information e.g. Chemotherapy Regime. NB discounted prices or local prices must not be included as these are subject to commercial confidentiality and must not be disclosed.			
C1.3 Device Costs Where not included in national or local tariff, list each element of the excluded device, quantity, list or expected price including VAT if applicable and any other key information. NB: Discounted prices or local prices must not be included as these are subject to commercial confidentiality and must not be disclosed.	£3,295 per device exclusive of VAT		
C1.4 Activity Costs covered by National Tariffs List all the HRG codes, HRG descriptions, national tariffs (excluding MFF), volume and other key costs (e.g. specialist top up %)	Activity TBC	Cost (£) TBC	
(e.g. specialist top up 70)			

C1.6 Other Activity Costs not covered by National or Local Tariff Include descriptions and estimates of all key costs.	Not applicable			
C1.7 Are there any prior approval mechanisms required either during implementation or permanently?	<u>No</u>			
C2 Average Cost per Patient				
C2.1 What is the estimated cost per patient to NHS	YR1	£TBC		
England, in years 1-5, including follow-up where required?	YR2	£TBC		
	YR3	£TBC		
	YR4	£TBC		
	YR5	£TBC		
Are there any changes expected in year 6-10 which would impact the model?				
C3 Overall Cost Impact of this Policy to NHS England	ı			
C3.1 Specify the budget impact of the proposal on NHS	Cost pressure			
England in relation to the relevant pathway.	YR1		£TBC	
	YR2		£TBC	
	YR3		£TBC	

	T
C3.2 If the budget impact on NHS England cannot be identified set out the reasons why this cannot be measured.	Not applicable
C3.3 If the activity is subject to a change of commissioning responsibility, from CCG to NHS England, has a methodology for the transfer of funds been identified, and calculated?	Not applicable
C4 Overall cost impact of this policy to the NHS as a	whole
C4.1 Specify the budget impact of the proposal on other parts of the NHS.	Budget impact for CCGs: Cost saving The potential savings for CCGs will come from a reduction in the number of stroke procedures necessary. Value £TBC Budget impact for providers: Cost neutral Please specify:
C4.2 Taking into account responses to C3.1 and C4.1, specify the budget impact to the NHS as a whole.	Cost pressure Please specify: Value £TBC

C4.3 Where the budget impact is unknown set out the reasons why this cannot be measured	
C4.4 Are there likely to be any costs or savings for non- NHS commissioners and/or public sector funders?	Yes Please specify: Social care and community care cost savings and disability benefits.
C5 Funding	
C5.1 Where a cost pressure is indicated, state known source of funds for investment, where identified, e.g. decommissioning less clinically or cost-effective services.	The funding will be from within the CPAG Prioritisation reserve.
C6 Financial Risks Associated with Implementing thi	s Policy
C6.1 What are the material financial risks to implementing this policy?	There is a risk that the requirement for a building of capacity over time has been over estimated and that the anticipated numbers will present within a shorter timeframe i.e. within first 2 years.
C6.2 How can these risks be mitigated?	It is not clear how real this risk is as numbers in the CtE were less. However, the activity and finance modelling is based on best clinical knowledge of numbers of eligible patients and a consensus view, including that of the professional clinical body, of future impact. Additionally, by careful assessment and screening processes for patients and by the strict application of commissioning criteria to select patients who will benefit the most from the intervention. Inclusion of the PFO closure device in the national HCTED programme will enable device costs to be managed.

C6.3 What scenarios (differential assumptions) have been explicitly tested to generate best case, worst case and most likely total cost scenarios?	Click here to enter text.	
C6.4 What scenario has been approved and why?	Click here to enter text.	
C7 Value for Money		
C7.1 What published evidence is available that the treatment is cost effective as evidenced in the evidence review?	The ICERS reported by Tirschwell et al 2018 are well within the acc per QALY threshold at 10 and 20 years. However, it is possible that some uncertainty about the cost-effectiveness of PFO closure compute to the ambiguity of the UK subpopulation patient selection criter reported confidence intervals and the lack of other cost effectiveness including the cost per life year gained, the cost to prevent one recurrent the time before the cost of medical therapy exceeds the cost of PFC information will be provided by the CtE economic analysis Please specify: To be completed once the CtE Economic results have been published.	there remains pared with MTA ia, the lack of soutcomes rent stroke, or oclosure. Further
C7.2 Has other data been identified through the service	Select all that apply:	
specification development relevant to the assessment of value for money?	Available pricing data suggests the treatment is equivalent cost compared to current/comparator treatment	
	Available pricing data suggests the treatment is lower cost compared to current/comparator treatment	
	Available clinical practice data suggests the new treatment has the potential to improve value for money	\boxtimes
	Other data has been identified	
	No data has been identified	

	The data supports a high level of certainty about the impact on value	
	The data does not support a high level of certainty about the impact on value	
C8 Cost Profile		
C8.1 Are there non-recurrent capital or revenue costs associated with this policy?	<u>No</u>	
C8.2 If yes, confirm the source of funds to meet these costs.	Not applicable	