

AHSN Atrial Fibrillation (AF) Strategy for the North East and North Cumbria

Introduction

There is strong evidence that those with untreated AF or sub-optimally managed AF, an irregular heart rhythm condition, are at substantially higher risk of developing a stroke (1) and that the outcome of an AF-related stroke is substantially worse than that of the general stroke population. Out of five patients having an AF-related stroke, only one will return to their home (two will go into a care home and two will die). It is estimated that 2.4% of the population in England have AF, without treatment 1 in 20 patients will have a stroke (2). The Sentinel Stroke National Audit Project (SSNAP) reports that the average NHS and social care cost for each person that has a stroke is about £22,000 a year, and around £45,000 over five years (including inpatient, post discharge, rehabilitation and long term care costs) (3). Patients with AF can be asymptomatic and Public Health England (PHE) modelling suggests there are 500,000 patients in England with undiagnosed AF; 25,619 patients in the North East and North Cumbria area (4). NHS RightCare have produced data packs for long term conditions where each CCG can view 'Reported to Estimated prevalence of Atrial Fibrillation' and this can be accessed on: <https://www.england.nhs.uk/rightcare/products/ccg-data-packs/long-term-conditions-packs/#north>

We recognise the King's Fund report, *Adoption and Spread of Innovation in the NHS* which states that, 'The attitudes of local leaders and the working environment within providers have a significant impact on the speed of innovation and spread....At least in theory, the establishment of accountable care systems presents an opportunity to address many of the barriers.....and establish organisations with stronger mechanisms for sharing learning and improvement.'" (5) By working together with NHSE, NICE, PHE, NHS RightCare and the voluntary sector, organisations who are all working to improve AF, we can align work, through the ICS to enable faster spread of innovation and improvement. Ultimately, we all wish to improve care and reduce AF-related stroke mortality and morbidity.

The AHSN-NENC have an established AF Programme which started in April 2015.

Vision Statement

To achieve nationally set standards (mandated by NHSE for AHSNs) closing the prevalence gap for those with AF, and achieving greater rates of effective anticoagulation by working across the whole health economy at a system level.

Mission Statement

To improve detection of undiagnosed Atrial Fibrillation (AF) and ensure those with known AF are managed optimally according to NICE Guidance (CG180) and best practice, thus reducing AF-related strokes.

Objectives

- To achieve at least 85% detected prevalence across the NENC area by March 2020. (PHE have a proposed ambition of 90% of expected prevalence to be detected by 2023).
- To achieve 90% of all CCGs achieving 84% of all patients with a CHA₂DS₂VASc score of 2 receiving anticoagulation, with all CCGs above 80%, across the NENC area by March 2020. (PHE have a proposed ambition of 90% of patients with AF who are known to be at high risk of a stroke to be adequately anticoagulated by 2023).
- By achieving these targets, for the NENC area, we could prevent 282 strokes, save 71 lives over 2 years and £6.3M at one year and £12.9M at 5 years.

Performance Measures

1. **To achieve at least 85% prevalence across the NENC area by March 2020:** prevalence of diagnosed AF across the NENC ranges from 76.6% to 82.1% (2017/18, QOF). To achieve expected 85% prevalence 9,967 more people need to be detected.
2. **To achieve 90% of all CCGs achieving 84% of all patients with a CHA₂DS₂VASc score of 2 receiving anticoagulation, with all CCGs above 80%, across the NENC area by March 2020:** currently NENC has 84.34% anticoagulation for all patients with AF and all CCGs, with one exception, have greater than 80% anticoagulation rates.
3. **To achieve less than 30% patients with known AF admitted with stroke not anticoagulated by March 2020.** Currently, this stands at 50%
4. **5% and 10% reduction in incidence of stroke in people with known AF by March 2020.**

See Appendix for current CCG achievements.

Implementation Process

- **Strategy Manager:** AHSN via the Medical Director, Professor Julia Newton and Kate Mackay, AF Programme Lead through the AHSN AF Steering Group.



- **Communication:** this will be via all stakeholders including the AHSN, Northern England Clinical Network (NECN) Cardiovascular Prevention Network, NICE, PHE, NHS RightCare and the voluntary sector.
- **Accountability:** the AHSN is accountable to the AHSN Board, NHSE and ICS, along with partner organisations, to achieve the objectives outlined for AF.
- **Frequency:** Data and progress on objectives will be supplied via NHSE and AliveCor, QoF and SSNAP when they are available.

To achieve the above the AHSN have developed a programme of projects to support the health economy.

Implementation

AF Pathway: Detect – Protect – Perfect and projects

Detect:

1. **Opportunistic pulse detection using a small hand-held device called AliveCor:** NHSE have supplied 360 devices to the AHSN-NENC as part of a national roll-out of pulse checking devices across England via all 15 AHSNs. In 2014, the National Screening Committee did not recommend a national screening programme for AF (6), although this is being reviewed in 2018, and the AHSN is promoting case finding of AF in high risk patients, such as those with long term conditions. More recently published AF guidelines from The European Society for Cardiology in 2016 recommend opportunistic screening in those aged > 65 (7), and in 2018, the Australian Guidelines has also made a justification for case finding and includes references to the stroke risk in the group with incidentally detected AF (8). The primary setting for AliveCor is GP practices, although AliveCors are being used in pre-operative assessment clinics, community cardiology services, community pharmacists, third sector, podiatrists and there are discussions with mental health trusts. There is comprehensive training and materials including leaflets, posters and videos to support the use of AliveCor, alongside robust governance documentation. NHSE wish to see a ROI; there is a national evaluation involving both quantitative and qualitative methods, and includes reporting of monthly metrics for use and the result outcome from each device and focus groups and interviews with users. We have moved into the 'early adopters' phase of the Diffusion of Innovation curve (9). AliveCors are free to Health Care Professionals across the patch until the allocated NHSE resource has been deployed and are being used.



2. **Opportunistic pulse detection for patients having diabetes footchecks:** Patients with diabetes undergo an annual review that includes a foot check where pulses are assessed. Therefore any patient with an irregular pulse can be detected as part of the review process. Traditionally, the healthcare professional, usually a podiatrist, is listening to the presence or absence of a pulse; they are not listening for regularity. With some extra training we can make every contact count, and podiatrists can detect an irregular pulse. Pilot work in County Durham and Darlington demonstrated that for every 500 foot checks 1 new case of AF could be detected. This work is now spreading and being adopted in other parts of the NENC via NHSE's Northern Diabetes Footcare Network. Other parts of England are also adopting this approach and it is being supported by the College of Podiatry and Anticoagulation Europe (ACE). Any area wishing to take this forward will be supported by the AHSN to adapt and implement in their area.

Protect & Perfect (grouped together due to overlap):

1. **Provision of education sessions with AHSN Clinical Support Lead or via Primary Care Cardiovascular Society:** upskilling Health Care Professionals in the management of AF so they feel confident and competent. This can be done at a General Practice and/or team level or at an educational event such as a monthly CCG Time In Time Out session. NHS RightCare working with NHS Clinical Networks will be rolling out the Healthy Hearts website work which originated in Bradford. This will act as a resource for both health professionals and the public aiming to reduce the risk of stroke and heart attack.
2. **Bespoke projects per CCG/ GP Federation funded externally:** each CCG operates from a different starting point and to recognise this, the AHSN will work in collaboration with the CCG to develop a bespoke solution. This often requires further funding in terms of resource and this can be sought from external partners such as industry where the AHSN will act as an honest broker.
3. **INR & home monitoring of warfarin in Newcastle:** the pathway within Newcastle has been modified to take account of 3 innovations: warfarin sensitivity genotype testing before choice of anticoagulant is made, then where appropriate, genotype guided warfarin initiation, and subsequently an option for patients or their carers to self-test their INR at home. This work is currently being evaluated to inform it's value of incorporating in the longer term.
4. **E-learning resource for shared decision-making:** development of a resource modelling shared decision-making using a pharmacist, GP and Cardiologist.
5. **AF Card Deck (top tips for AF):** this resource has been revised from results of an evaluation of a previous version and the newly revised Deck has been updated and sent to all GPs across the NENC area during Spring 2018.

6. **Anticoagulation with Jack video (resource for patients):** this was developed by Wessex AHSN and is available on the AHSN AF Webpage to all.
7. **Work with local partners to scale up GP system (System1 and EMIS) which supports identification of patients with AF and implementation of management of patients with AF:** this work is planned with the region-wide Clinical Digital Resource Collaborative. Exact methods of working have yet to be determined, but are likely to involve training and awareness-raising within primary care allowing them to access and make best use of this free resource.

We would seek to work alongside other detection and management work, for example hypertension, so that work is not repeated for different disease conditions. By aligning work and 'piggy backing' we aim to work smarter. This would be conducted through the recently established NENC CVD Prevention Network.

CCG Engagement

To date every CCG has engaged with the AHSN at various levels, please see below.

Stage 0: if CCG is not engaged in any aspect of the Detect / Protect / Perfect work

Level 1: if there has been some engagement with CCGs around one of the aspects of AF work

Level 2: if CCGs are engaged and plans are underway to implement changes within the majority of practices.

Level 3: if CCGs have implemented 2 out of the three elements of the detect / protect / perfect elements within the majority of practices

Level 4: if CCG has all elements been implemented across majority of practices in CCG

Most CCGs are between levels 1 and 3, and this is noted at regular intervals to determine progress. Current engagement levels are conservative, and plans are underway in many CCGs to go to the next level. The AHSN has established relationships with CCGs and is well placed to work on behalf of the health economy.

We would aspire for all stakeholders including CCGs, primary care, secondary care, third sector and Arm's Length Bodies to work together to support and deliver the objectives of this strategy.

References

- (1) NICE, *Atrial Fibrillation: Management, CG 180*. August 2014.
- (2) Stroke Association in partnership with PHE, RCP, RCGP and BHF, *AF: How Can We Do Better?* 2017.
- (3) Royal College of Physicians on behalf of SSNAP, *Stroke Health Economics: cost and cost effectiveness analysis*. 2016. Available at:



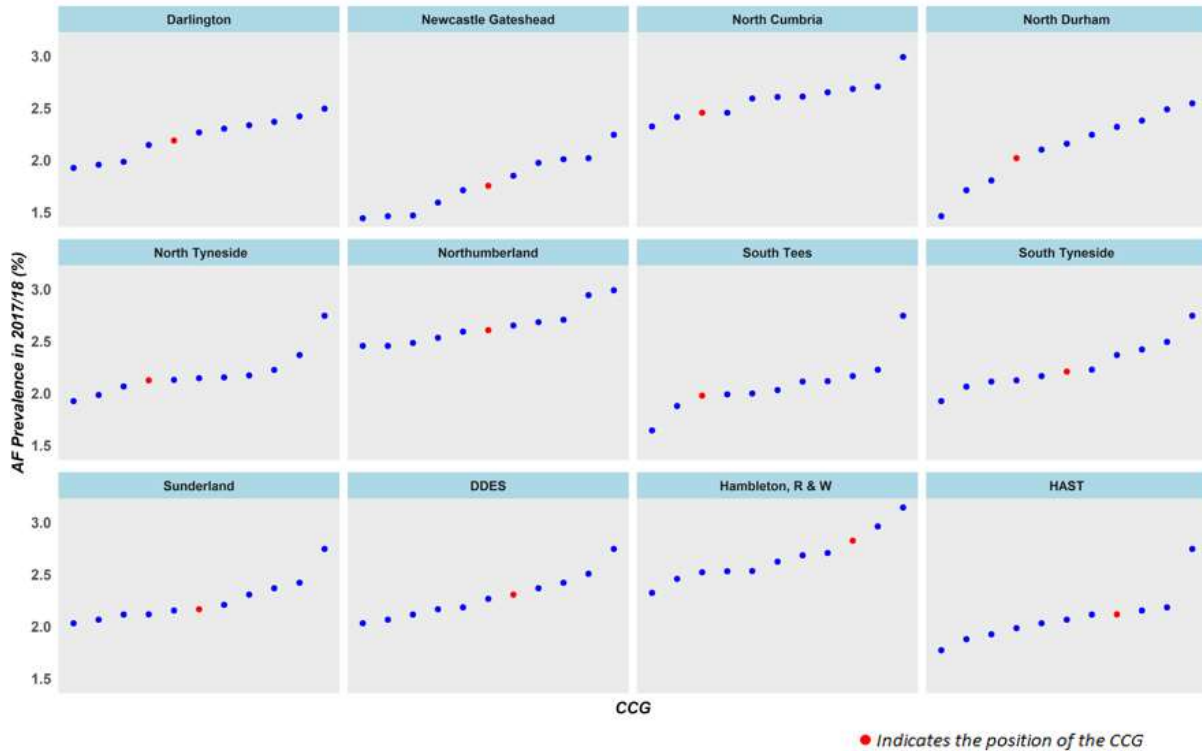
https://www.strokeaudit.org/SupportFiles/Documents/Research/HSRN_abstract_HE_ESO.aspx

- (4) National Cardiovascular Intelligence Network (NCVIN), *Atrial Fibrillation Prevalence Estimates*. PHE, February 2017.
- (5) Collins, B. *Adoption and Spread of Innovation in the NHS*. King's Fund. January 2018.
- (6) UK National Screening Committee, *Screening for Atrial Fibrillation in the over 65s*. 18 June 2014.
- (7) ESC Guidelines for the management of atrial fibrillation developed in collaboration with European Association for Cardio-Thoracic Surgery, *European Heart Journal* (2016) 37, 2893–2962.
- (8) National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand: Australian Clinical Guidelines for the Diagnosis and Management of Atrial Fibrillation 2018, *Heart, Lung and Circulation* (2018) 27, 1209–1266.
- (9) Rogers, E.M. *Diffusion of Innovations*, Fifth Edition, 2003, Free Press, New York, p221

Appendix

Data below is provided by NEQOS.

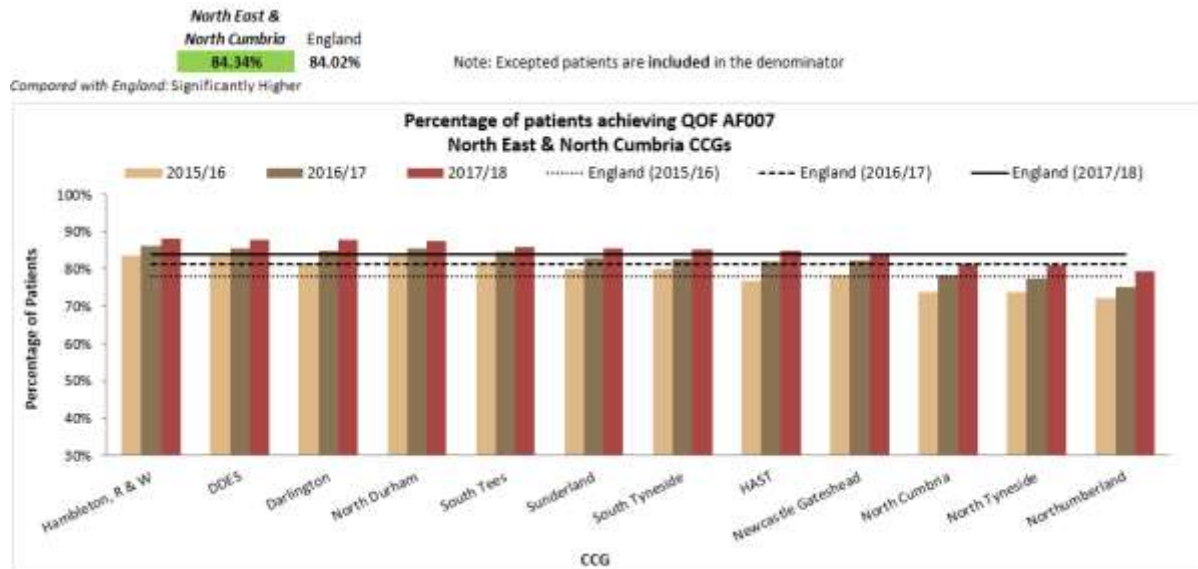
1. Atrial fibrillation recorded prevalence - comparison with 10 similar CCGs



Data sources: Quality and Outcomes Framework (QOF), NHS Digital (<http://content.digital.nhs.uk/qof>) © NHS Digital. QOF is licensed under the Open Government Licence v3.0 except where otherwise stated. NHS England Similar 10 CCG Explorer Tool, (<https://www.england.nhs.uk/publication/similar-10-ccg-explorer-tool/>)

Notes: NHS RightCare is an NHS England Programme which identifies opportunities for saving and quality improvement by comparing CCGs with similar characteristics. The methodology involves specifying, for each CCG in England, a fixed group of 10 'similar' CCGs which are identified by demographic characteristics such as deprivation, population density and specific population age groups. Although some of the NENC CCGs have other local CCGs in their 10 'similar' group, the prevalence comparison above is presented for each CCG separately.

2. Percentage of patients achieving QOF AF007 (2016/17): in those patients with AF with a record of CHA₂DS₂VASc score of 2 or more, the percentage of patients who are currently treated with anticoagulation drug therapy.



Data source: Quality and Outcomes Framework (QOF), NHS Digital (<http://content.digital.nhs.uk/qof>). © NHS Digital. QOF is licensed under the Open Government Licence v3.0 except where otherwise stated.

Notes: In the QOF indicator reported above the data includes excepted cases in the denominator as this is a better indication of the real clinical picture and will therefore not be the same as the published QOF achievement for each CCG. The QOF achievement thresholds for payment are 40-70%.

The North East and North Cumbria rate of 84.34% is statistically higher than the achievement rate for England (84.02%). At CCG level there has been an improvement in the achievement of this indicator since 2015/16 across the North East and North Cumbria. In 2017/18 the achievement varies from 88.0% in Hambleton, Richmondshire and Whitby CCG to 79.3% in Northumberland CCG.

3. Summary of achievement by CCG for metrics linked to stroke prevention and mortality.

	Atrial fibrillation recorded prevalence (2017/18)	AF recorded prevalence (compared to 10 similar CCGs) (2017/18)	AF005 - % patients with AF with stroke risk assessed using CHA2DS2-VASc in the preceding 12 months (2017/18)	Exception rate for AF005 (2017/18)	AF007 - % of AF patients with CHA2DS2-VASc score of 2-4 currently treated with anticoagulation drug therapy (2017/18)	Exception rate for AF007 (2017/18)	<75 mortality rate from stroke (rate per 100,000) (2014-16)	CH0002 - % CHD patients with blood pressure of 150/90 mmHg or less (12 months) (2017/18)	CH0005.0 - % CHD patients a record that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken (12 months)(2017/18)	HY0006 - % hypertensive patients with blood pressure of 150/90 mmHg or less (12 months)(2017/18)	DM0002 - % diabetes patients with blood pressure reading of 150/90 mmHg or less (12 months)(2017/18)	DM0003 - % diabetes patients with blood pressure reading of 140/90 mmHg or less (12 months) (2017/18)	DM0004 - % diabetes patients with last total cholesterol is 5 mmol/l or less (12 months) (2017/18)	DM0007 - % diabetes patients in whom the last IFCC-HbA1c is 59 mmol/mol or less (12 months) (2017/18)	DM0009 - % diabetes patients in whom the last IFCC-HbA1c is 75 mmol/mol or less (12 months) (2017/18)	Obesity recorded prevalence (2017/18)	% of patients aged 65+ who have frailty recorded as either moderate or severe (cumulative to Q4 2017/18)
Hambleton, Richmondshire & Whitley	2.82%	9th	94.5%	4.4%	88.0%	4.7%	9.12	92.1%	94.1%	82.3%	90.3%	76.5%	67.1%	61.6%	83.9%	10.1%	11.9%
Northumberland	2.60%	6th	92.2%	4.9%	79.3%	7.3%	14.02	87.1%	91.9%	79.5%	85.6%	70.4%	66.6%	61.9%	80.4%	13.2%	7.2%
North Cumbria	2.45%	3rd	96.5%	2.0%	81.4%	8.3%	14.30	91.2%	91.7%	83.2%	89.8%	76.4%	68.4%	61.8%	81.1%	11.4%	10.7%
Durham Dees, Easington & Sedgefield	2.30%	7th	94.7%	3.8%	87.7%	5.0%	10.96	90.1%	92.4%	82.0%	88.4%	71.0%	68.5%	59.8%	80.8%	15.1%	14.2%
South Tyneside	2.21%	6th	95.1%	3.2%	85.2%	8.2%	13.54	87.1%	93.1%	79.5%	87.5%	71.8%	71.6%	59.1%	78.1%	13.0%	9.5%
Darlington	2.19%	5th	93.3%	5.5%	87.6%	6.8%	14.37	90.3%	92.1%	82.9%	87.5%	68.7%	69.1%	60.1%	80.9%	14.7%	9.9%
Sunderland	2.16%	6th	93.3%	3.5%	85.7%	5.6%	17.18	88.5%	93.6%	79.1%	87.0%	73.5%	72.5%	57.7%	77.3%	13.3%	7.0%
North Tyneside	2.12%	4th	93.6%	4.1%	80.8%	7.7%	17.22	87.4%	91.8%	80.7%	86.8%	70.2%	68.9%	62.4%	81.0%	12.6%	8.3%
Hartlepool & Stockton on Tees	2.11%	8th	92.6%	5.8%	84.0%	6.5%	16.13	89.6%	92.2%	82.1%	86.7%	72.8%	69.4%	61.7%	81.3%	13.8%	7.8%
North Durham	2.02%	4th	93.4%	3.8%	87.5%	4.6%	15.08	87.8%	92.6%	79.9%	86.2%	69.8%	65.0%	60.0%	79.9%	12.9%	3.5%
South Tees	1.98%	3rd	87.9%	6.8%	85.7%	6.0%	10.16	86.5%	91.6%	78.2%	84.0%	67.1%	66.0%	55.1%	77.6%	12.0%	14.9%
Newcastle Gateshead	1.75%	6th	94.2%	3.8%	84.0%	7.9%	17.61	88.0%	93.9%	80.4%	86.3%	68.8%	72.2%	60.1%	78.7%	11.1%	8.1%
North East & North Cumbria average	2.18%		93.5%	4.2%	84.3%	6.6%		88.8%	92.6%	80.7%	87.0%	71.2%	68.9%	60.1%	79.9%	12.7%	9.4%
England average	1.91%		93.6%	3.8%	84.0%	6.7%	13.44	88.1%	91.7%	79.1%	86.1%	70.1%	69.2%	60.3%	79.4%	9.8%	9.5%

Data sources: Quality and Outcomes Framework (QOF), NHS Digital (<http://content.digital.nhs.uk/qof>) © NHS Digital. QOF is licensed under the Open Government Licence v3.0 except where otherwise stated. NHS England Similar 10 CCG Explorer Tool (<https://www.england.nhs.uk/publication/similar-10-ccg-explorer-tool/>), Public Health England Fingertips tool (<http://fingertips.phe.org.uk>).

Notes: The table provides a high level summary of the achievement at CCG level of measures which are linked to stroke prevention and mortality. Values highlighted in green and red indicate when an area is statistically significantly better or worse than the England value for that particular indicator. Amber indicates where a CCG's value is not significantly different to the England value.