Title: GP data cleansing initiative for atrial fibrillation and hypertension in Hampshire, Isle of Wight and Thames Valley regions: February 2019 – December 2019. Lead: Dr Raj Thakkar, LTC/CVD lead, TV and Hants SCN, NHSE/I

Description: *Data cleansing of coding atrial fibrillation and hypertension in GP practices*. The Long Term Plan (Jan 2019) describes an ambition to diagnose more patients and to reduce variation in care, and refers specifically to high numbers of people living with undetected hypertension (HTN) and atrial fibrillation (AF). According to *Size of the Prize,* Public Health England data there are a significant number of undiagnosed patients across Hampshire, Isle of Wight and Thames Valley which correlate with the potential to avoid 1870 strokes and 879 heart attacks from improved detection and management of HTN and AF(£49m 3-year savings). The social care of stroke across the UK is over £5billion.

The prevalence of both HTN and AF vary between CCGs and may relate, in part, to the quality of clinical coding. People who are on treatment for HTN or AF, but who are not coded, may be at risk of not being recalled as part of the disease register protocol and this may have a direct impact on their risk of cardiovascular complications, quality of life, maintaining independence and survival. Equally, under-recording will artificially under-estimate the prevalence of patients with known HTN and AF.

Whilst it is recognised that practices are financially supported to identify, record and treat patients with both HTN and AF, it was appreciated that there is a clear gap in coding and a potential consequence in care of this cohort of patients, and as such, there is an opportunity to address this via a funded one-off data cleanse process.

The project and funding was offered to 494 practices across Hampshire, Isle of Wight and Thames Valley.

Financial sponsorship:
NHS England South East region allocated £395,200 to the data cleansing initiative for 494 practices (£800 per GP practice).

Aims and objectives:

- Improve the quality of coding for AF and HTN within primary care
- Improved coding will generate a more accurate register of people with AF and HTN. The register would then inform the practice's recall and review processes within primary care and wider healthcare system to support people to live healthier, monitor effective treatment and support medicines optimisation
- The project was part of a comprehensive CVD programme led by the strategic clinical network and took a pragmatic approach in engaging CCGs to establish a platform for partnership working with primary care regarding CVD prevention to align with the priorities of the NHS Long Term plan, following NICE guidance (see below).

NICE AF guidance https://www.nice.org.uk/guidance/cg180
BP https://www.nice.org.uk/guidance/ng136

Reasons for implementing the project:

- *Size of the Prize* data identified AF and HTN as areas for opportunity for improved health outcomes. "Beta-testing" at one well performing General Practice demonstrated there was an opportunity to improve coding given a number of patients with AF and HTN were not coded and as such, those patients were at risk of being under monitored and inadequately managed. It was therefore likely there was chronic under-recording across the whole population, that is, patients on treatment for either AF or HTN but without a problem code.
- It was expected that more accurate disease registers would translate to more robust re-call and review processes and therefore offered the potential for further avoidance of strokes, myocardial infarction and other CVD complications.

How did you implement the project?

For GP practices:

- The SCN secured NHSE funding and provided the guidance to support this project. CCGs were offered funding for 2 sessions of clinical time per practice (£800) to enable clinical staff to review patient records and undertake a robust code cleansing exercise for AF and HTN
- CCGs led and implemented the project with their constituent practices. It was considered appropriate that the CCG would individually develop specifications to ensure buy-in and local ownership.
- The reporting back to the SCN by each CCG would require baseline data and the increase in prevalence. Processes to ensure that registers were maintained also required.
- A specified search criterion of the patients' medical records resulted in identifying the patients who were receiving treatment for HTN and AF, but who did not currently have a clinical code.
- At least one CCG (Bucks) also required GP practices to review patients with persistently high blood pressure readings without a problem code
- NICE guidance was referenced in the original offer letter to CCGs signed by the Director for Commissioning and Medical Director for NHS England, South East
- Commitment of the project was identified with 'one off' funding and due to the opportunistic nature of the funding, full project management principles were not employed.
- A template was designed for completion to demonstrate the number of patients identified with AF and HTN pre and post the exercise which, would also validate the funding
- CCGs were required to declare any legacy funds and to use these monies on practices with the lowest prevalence of HTN and AF (report expected Q2 2020).

Key findings:

- **284 Practices** (74%) participated in the initiative to date (a further 6 practices are due to complete March 2020 76%)
- **18,623** patients have been added to the Hypertension registers
- **3,301** patients have been added to the AF registers
- The deficit to meet 85% of estimated AF prevalence is **6040 people**

CCGs participation:

	CCGs	No of practices	No of practices participated	Participated %
Hampshire and the Isle of Wight STP	NHS Fareham and Gosport CCG	17	12	71%
	NHS North Hampshire CCG *	15	2	13%
	NHS Portsmouth CCG	15	12	80%
	NHS South Eastern Hampshire CCG	20	17	85%
	NHS Southampton CCG	27	20	74%
	NHS West Hampshire CCG	49	37	76%
BOB STP	NHS Berkshire West CCG	48	37	77%
	NHS Buckinghamshire CCG	50	31	62%
	NHS Oxfordshire CCG	70	47	67%
Frimley Health STP	NHS East Berkshire CCG	46	46	100%
	NHS Surrey Heath CCG	7	7	100%
	NHS North East Hampshire And Farnham CCG	20	16	80%
	TOTAL	384	284	74%

* NHS North Hampshire CCG have a total of 8 practices participating however, there has been a delay in completion

Summary of Hypertension changes:

	CCGs	No of register for participated practices				Prevalance of participated practices		
		Before	After	Additional register	% increased	Before	After	% increased
Hampshire and the Isle of Wight STP	NHS Fareham and Gosport CCG	24,794	25,484	690	2.8%	15.08%	15.50%	0.42%
	NHS North Hampshire CCG	5,104	5,190	86	1.7%	15.51%	15.77%	0.26%
	NHS Portsmouth CCG	24,268	24,701	433	1.8%	13.46%	13.70%	0.24%
	NHS South Eastern Hampshire CCG	27,377	27,749	372	1.4%	14.66%	14.85%	0.18%
	NHS Southampton CCG	20,313	21,012	699	3.4%	11.09%	11.48%	0.38%
	NHS West Hampshire CCG	65,007	67,209	2,202	3.4%	15.08%	15.59%	0.51%
BOB STP	NHS Berkshire West CCG	52,719	55,525	2,806	5.3%	12.43%	13.09%	0.65%
	NHS Buckinghamshire CCG	73,408	80,637	7,229	9.8%	13.96%	14.13%	0.17%
	NHS Oxfordshire CCG	69,131	69,975	844	1.2%	12.63%	12.69%	0.06%
Frimley Health STP	NHS East Berkshire CCG	58,871	60,955	2,084	3.5%	12.61%	13.04%	0.43%
	NHS Surrey Heath CCG	13,339	13,947	608	4.6%	13.70%	14.29%	0.59%
	NHS North East Hampshire And Farnham CCG	27,141	27,711	570	2.1%	14.28%	14.52%	0.24%
	TOTAL	461,472	480,095	18,623	4.0%	13.45%	13.79%	0.34%

Summary of Atrial fibrillation:

	CCGs	No of register for participated practices				Prevalance of participated practices		
		Before	After	Additional register	% increased	Before	After	% increased
Hampshire and the Isle of Wight STP	NHS Fareham and Gosport CCG	6,018	6,141	123	2.0%	3.66%	3.73%	0.07%
	NHS North Hampshire CCG	952	962	10	1.1%	2.89%	2.92%	0.03%
	NHS Portsmouth CCG	3,609	3,759	150	4.2%	2.00%	2.09%	0.08%
	NHS South Eastern Hampshire CCG	4,374	4,445	71	1.6%	2.34%	2.38%	0.04%
	NHS Southampton CCG	3,129	3,318	189	6.0%	1.58%	1.67%	0.10%
	NHS West Hampshire CCG	11,398	11,707	309	2.7%	2.64%	2.72%	0.07%
BOB STP	NHS Berkshire West CCG	7,089	7,671	583	8.2%	1.67%	1.81%	0.14%
	NHS Buckinghamshire CCG	11,652	12,968	1,316	11.3%	2.23%	2.27%	0.04%
	NHS Oxfordshire CCG	10,787	10,990	203	1.9%	1.97%	1.99%	0.02%
Frimley Health STP	NHS East Berkshire CCG	7,357	7,521	164	2.2%	1.58%	1.61%	0.03%
	NHS Surrey Heath CCG	2,075	2,188	113	5.4%	2.13%	2.24%	0.11%
	NHS North East Hampshire And Farnham CCG	3,931	4,013	82	2.1%	2.07%	2.10%	0.03%
	TOTAL	72,371	75,683	3,313	4.6%	2.10%	2.16%	0.06%

Gaps to meet 85% of estimated AF prevalence:

			Atrial fibrillation					
			QOF 2018/19					
STP name	CCG	Number of practices	Register	Prevalence (%)	Estimated prevalance diagnosis %	No of gaps to meet 85% of estimated prevalance	Additional cases from code cleansing	Proportion to gap
Hampshire and the Isle of Wight STP	NHS Fareham and Gosport CCG	18	5,335	2.60	82%	180	123	68%
	NHS North Hampshire CCG	18	4,438	1.68	66%	1,285	10	1%
	NHS Portsmouth CCG	15	4,003	1.72	82%	140	150	107%
	NHS South Eastern Hampshire CCG	20	5,848	2.70	83%	135	71	53%
	NHS Southampton CCG	27	4,394	1.52	79%	345	189	55%
	NHS West Hampshire CCG	49	15,085	2.66	82%	550	309	56%
BOB STP	NHS Berkshire West CCG	47	9,216	1.68	75%	1,300	583	45%
	NHS Buckinghamshire CCG	50	12,373	2.19	82%	400	1316	329%
	NHS Oxfordshire CCG	70	14,948	1.97	81%	715	203	28%
Frimley Health STP	NHS East Berkshire CCG	47	7,381	1.58	77%	755	164	22%
	NHS Surrey Heath CCG	7	2,077	2.14	78%	180	113	63%
	NHS North East Hampshire and Farnham CCG	20	4,791	2.16	84%	55	82	149%
	TOTAL					6,040	3313	55%

Return of Investment ie strokes avoided and AF avoided

All Wessex and Thames Valley CCGs participated except for Dorset and Isle of Wight (both areas were involved with an AF initiative with Wessex AHSN). In all participating CCGs there was good representation however, a small number of practices declined which they cited were due to competing priorities

Key learning points:

- Each CCG took a different approach, some paid a flat fee to GPs, some used a population weighted system, others a medicines management team approach. Whilst acknowledging this was an issue, there were some constraints in that flexibility was required to work with local structures and systems.
- Most CCGs that were unable to achieve 100% GP practice involvement highlighting the varied landscape in primary care. Some searches undertaken by GP practices were more sophisticated than others. This was due to the use of different data collection methods e.g. use of pharmacy technician. It was noted that pharmacy technicians provided training to practice staff; increasing sustainability of rigorous long-term monitoring.
- In some areas, practices that did not engage had the poorest baseline. This phenomenon will need local exploration and interpretation
- A small number of GP practices only undertook one search for either AF or HTN. This was considered their choice by the host CCG although in some cases CCGs persuaded practices to undertake both searches.
- A standardised audit tool would have resulted in more reliable baseline data. This may or may not have resulted in more GPs being recruited to the project, as the project vision at its outset, would have been clearer.
- That there is under-recording of AF and HTN across primary care, it is likely there is chronic under recording amongst other long term conditions such as diabetes, COPD and heart failure.
- Coding anomalies were identified including in-hospital patients treated for hypertension but not coded on discharge and/or patients moving GP practices and not coded. Furthermore, patients with co-morbidities e.g. diabetes and found to be hypertensive were coded for diabetes, but not for hypertension.
- The project being part of the wider CVD network programme, with established strong stakeholder engagement and ownership was a key factor in its success, along with the ownership of CCGs to deliver locally.
- Significant variation across GP practices was due to a number of factors including culture, workforce, demographic served. These factors should be acknowledged when considering the impact and outcome of the project.
- The project was a flagship piece of work in identifying patients at risk of AF/stroke/MI. It highlighted significant under-coding of AF and HTN within the STP areas, and therefore the potential for improvement. This baseline work has informed future innovative workstreams in CVD prevention.

Activities post data cleansing: case study from a PCN

In November 2019 I presented to Winchester Rural North and East PCN data related to patients with AF. The data presentation compared diagnosis prevalence before and after the cleanse, comparing 'actual' to 'expected', based on NCVIN and QOF data. Comparisons were made to national, local STP, Local CCG and local PCN rates, and was drilled down to show each practice their individual diagnosis rates, comparing them to each other within the same PCN. I highlighted the estimated gap between expected prevalence and actual prevalence compared against the PHE ambition of 85% of patients with AF to be diagnosed.

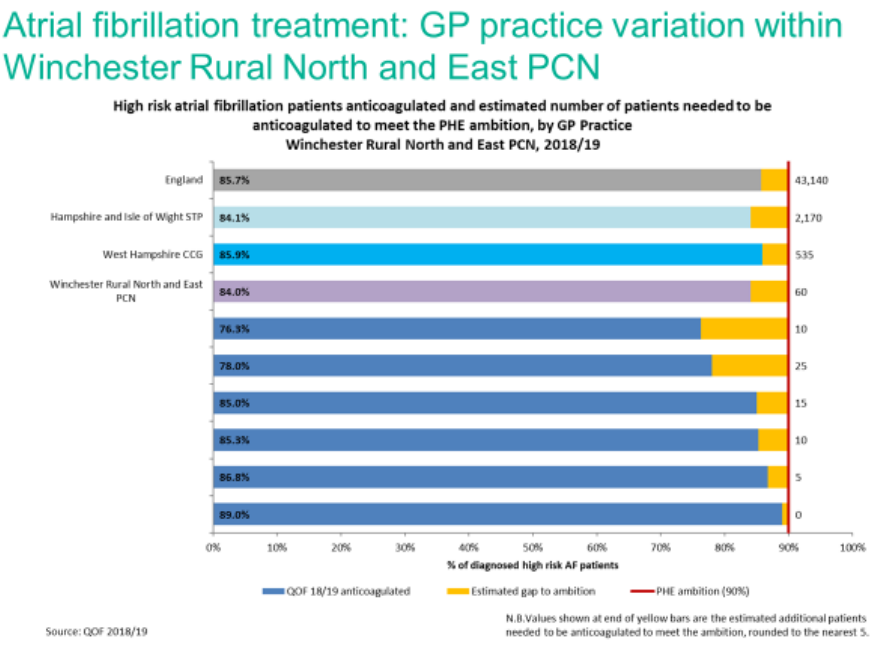
The same theme continued with treatment rates, again comparing 'actual' and 'ambition' towards the PHE goal of 90% of high risk patients with AF are anticoagulated.

I had slides from 2017-8 and 2018-9 QOF data to show trends rather than just a snapshot.

The presentation engaged the practices and they valued comparison data. A degree of friendly competition was established, where the lower attaining practices were motivated to improve. We spent surprisingly little time discussing the validity of the data but focussed on areas for development in a positive, non-accusatory way. The higher attaining practices shared good practice and at least one practice took away ideas around AF screening, such as initiation of screening for patients with AF at every single 'touch point' in the practice, including phlebotomy, nurse appointments and podiatrist appointments. Some Drs learnt what appeared new knowledge around contraindications for anticoagulation.
All practice leads agreed that the presentation was impactful and motivated them to search their own practice data.
A further slide would have been helpful relating to financial savings to be made around reduction on the incidence of CVA's within the population.
We agreed to review progress as a PCN in 6 months time. We also agreed that all would work with our medicines optimisation teams to look at AF in a more robust way.

I believe that if each PCN were to be given this data, presented by a local AF lead, this would initiate helpful conversations and induce positive change.

Attached is an example from the presentation.



Many thanks to Jo Wall at PHE for the presentation.