NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

INDICATOR DEVELOPMENT PROGRAMME

Consultation report

Indicator area: Pulse rhythm assessment and annual review for people with AF

Consultation period: 1 February – 29 February 2016

Date of Indicator Advisory Committee meeting: 6 June 2017

Contents

Indicator consulted on

ID		Evidence source
GP1	The percentage of patients registered at the practice aged 65 years and over who have been diagnosed with one or more of the following conditions: hypertension, diabetes, CKD, PAD, stroke/TIA, COPD or RA who have had a pulse rhythm assessment in the preceding 12 months.	Atrial fibrillation: management (2014) NICE guideline CG180 recommendation 1.1.1 Hypertension in adults: diagnosis and management (2011) NICE guideline CG127 recommendations 1.1.2 and 1.2.1 Type 1 diabetes in adults: diagnosis and management (2015) NICE guideline NG17 recommendation 1.13.1 Type 2 diabetes in adults: management (2015) NICE guideline NG28 recommendation 1.4.1 Chronic kidney disease in adults: assessment and management (2014) NICE guideline CG182 recommendation 1.6.1 Peripheral arterial disease: diagnosis and management (2012) NICE guideline CG147 recommendation 1.2.1 Stroke and transient ischaemic attack in over 16s: diagnosis and initial management (2008) NICE guideline CG68 recommendation 1.5.3.2 AF: How can we do better? (2015) Stroke association.

Notes

Consultation took place in February 2016 and was previously discussed at the June 2016 Indicator Advisory Committee.

The indicator published at consultation was as follows:

GP1: Of those patients registered at the practice aged 65 years and over who have been diagnosed with one or more of the following conditions hypertension, diabetes, CKD, PAD, stroke or COPD and who have had at least one consultation in the preceding 12 months: the proportion that have had a manual pulse palpation on at least one occasion.

However, following committee deliberations, amendments were made to the wording prior to testing:

GP1: Rheumatoid arthritis was included as a long term condition. The phrase ‘manual pulse palpation’ was altered to ‘pulse rhythm assessment’ to allow use of alternative technologies utilised in primary care.

GP1: Pulse rhythm assessment – 65 years and over with long-term conditions

The percentage of patients registered at the practice aged 65 years and over who have been diagnosed with one or more of the following conditions: hypertension, diabetes, CKD, PAD, stroke/TIA, COPD or RA who have had a pulse rhythm assessment in the preceding 12 months.

Rationale

This indicator will embed pulse rhythm assessment into routine clinical reviews for people over 65 years with long term conditions. This will help identify people with atrial fibrillation.

Atrial fibrillation can be diagnosed by performing a pulse rhythm assessment to assess for an irregular pulse, followed by an electrocardiogram (ECG) where an irregular pulse has been detected. Any blood pressure measurement should include checking for an irregular pulse. Blood pressure measurement is recommended for patients with hypertension, diabetes, CKD, PAD or previous stroke. Therefore a pulse rhythm assessment should also be performed in these patients to assess for an irregular pulse. Atrial fibrillation is also more likely in people with COPD (Stroke Association, 2015).

Summary of consultation comments

Mixed comments were received about the potential impact of this indicator upon general practice.

Some said there would be little impact on workload as the people would be presenting anyway. Significant benefits could therefore be achieved for minimal additional work. Others said that the impact would be additional and longer appointments, adding to the workload.

Some felt that implementation of this indicator would effectively be a screening programme. It was highlighted that the National Screening Committee reviewed the evidence for an AF screening programme and did not recommend it was taken forward.

It may be inappropriate in the context of the consultation to check the pulse, and patients and their doctors may feel this is intrusive if not indicated. The consultation could change from being patient-centred to one driven by the needs of the doctor.

There is potential to miss people with paroxysmal atrial fibrillation, as they would only present with an irregular pulse if they were asymptomatic. Asking

these people if they had previously had an irregular pulse may help detect atrial fibrillation.

Specific questions included at consultation

- Can respondents comment on access to ECG services?

  Stakeholders stated that ECGs are available within primary care. It was highlighted that there is variation in access to ECG services, and where ECGs are available within primary care there is variation in the skills available to interpret the results. Access is available within secondary care.

- People with chronic conditions were identified as an appropriate population for manual pulse rhythm assessment. Do stakeholders consider the range of the conditions covered in the indicator suitable?

  Stakeholders said the conditions covered were suitable, with additional conditions suggested such as obesity, serious mental illness, congestive heart failure, asthma, obstructive sleep apnoea and dementia.

  There were mixed responses from stakeholders regarding limiting the population to those over 65 years. Some agreed, while others said it should be all people with the conditions specified irrespective of age.

Considerations for the advisory committee

The committee is asked to:

- consider consultation comments alongside the testing report
- note that the inclusion of COPD is not based on NICE guidance.
- Rheumatoid arthritis was including in piloting however this is not supported by NICE or NICE-accredited guidance.

Appendix A: Consultation comments

ID	Proforma question no.	Stakeholder organisation	Comment
Question 2.1: Do you think there are any barriers to implementing the care described by this indicator?			
GP1	2.1	Association for the study of obesity	Uncertain
GP1	2.1	Association of British Clinical Diabetologists	No
GP1	2.1	Boehringer Ingelheim	No. We support that patients with hypertension, diabetes, CKD, PAD or previous stroke should receive manual pulse palpation to assess for irregular pulse.
GP1	2.1	British Holistic Medical Association	The intention is laudable: AF is important in cardiovascular disease, but distinguishing potential AF from harmless forms of irregularity is difficult and requires an experienced clinician if many unnecessary ECGs is to be avoided. Also, it can be intermittent. This has significant impact on workload and possibly patient anxiety.
GP1	2.1	British Thoracic Society	No but need to ensure pulse recorded long enough and need to ask patients if they had irregular heart beat.
GP1	2.1	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	Staff training with regard to pulse checks.
GP1	2.1	Daiichi Sankyo UK	Nil. As this'll ready part of existing established assessments, the addition of manual pulse check should not be an issue.
GP1	2.1	Individual comment	This appears to be a screening programme of the sort rejected by the NSC as not effective. http://legacy.screening.nhs.uk/atrialfibrillation. The guidance says that this is supported by NICE guideline but this is not the case. The guideline supports a pulse check with specific symptoms rather than screening of asymptomatic patients. Most of the other references to NICE guidelines are simply incorrect
GP1	2.1	Individual comment	No
GP1	2.1	Individual comment	no
GP1	2.1	Individual comment	Not enough GP's or Practice Staff.
GP1	2.1	Individual comment - GP	No

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.1	Individual comment - GP	Yes. Getting GPs to comply with palpation. Better to screen all over 65s at flu jab clinics which are the required cohort. Problem that GPs and CCGs see this as “extra work” and may not comply without some form of compensation. Very cost effective to the “whole system” but not to the narrow primary care silo.
GP1	2.1	Individual comment - GP	Limited time of primary care providers
GP1	2.1	Individual comment - GP	No. this is a good marker
GP1	2.1	Individual comment - GP	Perception of the pulse
GP1	2.1	Liverpool LA public health team	Staff training with regard to pulse checks.
GP1	2.1	London Borough of Redbridge	None
GP1	2.1	London Diabetes Strategic Clinical Network	No
GP1	2.1	Medtronic Limited	For patients who have had a stroke there will be a barrier to diagnosis by using manual pulse palpation as they will have received standard of care for diagnosis of AF during their hospital stay (manual palpation, ecg, holter, external extended monitoring).For those patients having had a stroke of unknown cause and where AF hasn’t been detected they are at high risk of a recurrent stroke and should be considered for referral to secondary care for long term monitoring via an Insertable Loop Recorder (ILR). The use of ILR versus standard of care gives 8 times the detection rate of AF and is proven to be cost effective in patients with stroke of unknown cause. http://www.nejm.org/doi/full/10.1056/NEJMoa1313600
GP1	2.1	NHS Employers	This needs to be specifically apical pulse and not peripheral.
GP1	2.1	NHS England	Undertaking a pulse assessment will add very little time to a consultation unless an abnormality is detected. NICE already recommends routine pulse assessment before blood pressure measurement. However many consultations with people over 65 or with long term conditions are conducted by HCAs – they may need training or technological assistance to identify

ID	Proforma question no.	Stakeholder organisation	Comment
			abnormal pulse rhythms and to understand the case for diagnosing AF.
GP1	2.1	Nightingale Valley Surgery.	Massive work load and re-direction of already very limited resources.
GP1	2.1	Nottinghamshire County Council	Some practices do not use manual pulse palpation but a BP and pulse monitor (e.g. Watch-Home BP) which accurately detects AF. Use of a suitable pulse monitor should be included as an alternative to manual pulse palpation.
GP1	2.1	Primary Care CVD Leadership Forum	Pulse assessment will add very little time to a consultation unless an abnormality is detected. NICE already recommends routine pulse assessment before blood pressure measurement.
GP1	2.1	Public Health England	Pulse assessment will add very little time to a consultation unless an abnormality is detected. NICE already recommends routine pulse assessment before blood pressure measurement.
GP1	2.1	Royal College of General Practitioners (RCGP)	These patients (except those with CKD, who don't have any disease and may not be being monitored at all), will be having annual reviews, and very often pulse rate and rhythm will be being recorded already. However other barriers do exist: 1.The need for patient education and self monitoring as GPs are aiming to increase patient responsibility and reporting. (Individual comment) 2.Organisational barriers to cue the clinician and to ensure that in 12 months all patients in the age group have been seen and recorded, then to review those not seen. This is a paradigm of selective screening. (Individual comment) 3.Pulse assessment will add very little time to a consultation unless an abnormality is detected. NICE already recommends

ID	Proforma question no.	Stakeholder organisation	Comment
			routine pulse assessment before blood pressure measurement. However many consultations with people over 65 or with long term conditions are conducted by HCAs – they may need training or technological assistance to identify abnormal pulse rhythms and to understand the case for diagnosing AF. (Individual comment) 4.It may be inappropriate in the context of the consultation to check the pulse and patients and their doctors are likely to feel this is intrusive if not indicated. It switches the consultation from a patient-centred one to one driven by the needs of the doctor. Also, time is a big issue, not just for the ECG but for appointments which will be needed to discuss results, many of which will be normal. (RCGP Overdiagnosis Group)
GP1	2.1	Royal College of Nursing	Reviewing patients who already have a diagnosis is quite time consuming.
GP1	2.1	Somerset CCG	No
GP1	2.1	Stroke Association	We do not believe that there are any significant barriers to implementing this indicator. Clearly, regular appointments are needed for monitoring those with comorbidities but this should not be a barrier to the indicator. Well-trained and practiced staff are also obviously needed but, again, this should not be a barrier. The importance of identifying those at risk from AF – and therefore at increased risk from a more serious stroke – should always outweigh these barriers.
GP1	2.1	The British Heart Foundation	No – all patients should be offered manual pulse checks in these categories as good clinical practice. Applying this to all patients aged 65 or over supports consistency in clinical practice.

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.1	Thrombosis UK	No, we think this is very achievable given the cohort targeted have pre-existing conditions and so should be attending chronic disease clinics / annual appointments for monitoring.
Question 2.2: Do you think there are potential unintended consequences to implementing / using this indicator?			
GP1	2.2	Association for the study of obesity	No
GP1	2.2	Association of British Clinical Diabetologists	No
GP1	2.2	Boehringer Ingelheim	No
GP1	2.2	British Holistic Medical Association	The intention is laudable: AF is important in cardiovascular disease, but distinguishing potential AF from harmless forms of irregularity is difficult and requires an experienced clinician if many unnecessary ECGs is to be avoided. Also, it can be intermittent. This has significant impact on workload and possibly patient anxiety.
GP1	2.2	British Medical Association	This would lead to further appointments when there is already pressure on appointment availability
GP1	2.2	British Thoracic Society	no
GP1	2.2	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	Diagnosis in those who do not regularly access health services for LTC management including those under secondary care service could lead to inequality.
GP1	2.2	Daiichi Sankyo UK	Some patients with paroxysmal AF, which only manifests occasionally may be missed unless symptomatic at the time of palpating.
GP1	2.2	Individual comment	Introduction of an inappropriate screening programme
GP1	2.2	Individual comment	No
GP1	2.2	Individual comment	This is screening for AF – the national screening committee have stated there is no benefit to a screeing program and opportunistic screening is appropriate – this is therefore screeing programme via the back door
GP1	2.2	Individual comment	no
GP1	2.2	Individual comment	Removal of resources from other areas.
GP1	2.2	Individual comment - Consultant Cardiologist	There is a potential unintended consequence that diagnoses of Atrial Fibrillation are missed due to the recommendation that

ID	Proforma question no.	Stakeholder organisation	Comment
			the patient has a manual pulse palpitation. Patients with undiagnosed Atrial Fibrillation are five times more likely to have a stroke. The manual pulse palpitation has several limiting factors including low specificity meaning patients need to be referred for further diagnostic tests, such as an ECG. "The first diagnostic test a general practitioner would use is to palpate the pulse for any irregularity, which has a sensitivity of 94% for detecting atrial fibrillation (determined in cohorts of elderly patients). However, because of the low specificity (72%) further diagnostic tests are needed" [Cooke G, Doust J, Sanders S. Is pulse palpation helpful in detecting atrial fibrillation? A systematic review. J Fam Pract 2006;55:130-4] The limiting factors in the current approach's ability to provide an immediate diagnosis include: • The manual pulse check is only a snapshot of a moment in time, not necessarily capturing the time of symptoms and thus missing the arrhythmia completely. • The time lag between manual pulse palpitation, referral to ECG and then appointment with a consultant to receive the result of the ECG. If the patient has undiagnosed AF, they remain at five times the risk of stroke until treated. New technologies have now emerged that can do both a pulse check and single lead ECG at the same time providing an immediate diagnosis of Atrial Fibrillation.

ID	Proforma question no.	Stakeholder organisation	Comment
			One example of this new technology was reviewed by NICE in August 2015. [NICE Medical Innovation Briefing, nice.org.uk/guidance/mib35] This smartphone ECG has a number of publications where the authors do not subsequently undertake a confirmatory 12 lead ECG recording, but rather use it as a single step diagnosis tool. In consideration of the need for a Cardiologist to review the recording from the smartphone ECG, the built in detection algorithm has a body of evidence behind it, comparing favourably with the manual pulse, quote N. Lowres et al. / European Journal of Cardio-Thoracic Surgery [Lowres N, Mulcahy G, Gallagher R, Freedman SB, Marshman D, Kirkness A et al. Self-monitoring for atrial fibrillation recurrence in the discharge period post-cardiac surgery using an iPhone electrocardiogram. Eur J Cardiothorac Surg 2016; doi:10.1093/ejcts/ezv486.] “The iECG has an automated AF detection algorithm that we validated with recordings both in a clinic setting (98% sensitivity, 97% specificity, and in community pharmacies (98.5% sensitivity and 91.4% specificity. This accuracy makes it an ideal device to detect asymptomatic or unrecognized AF.” [Lau JK, Lowres N, Neubeck L, Brieger DB, Sy RW, Galloway CD et al. iPhone ECG application for community screening to detect silent atrial fibrillation: a novel technology to prevent stroke [Research Letter]. Int J Cardiol 2013;165:193–4.]

ID	Proforma question no.	Stakeholder organisation	Comment
			[Lowres N, Neubeck L, Salkeld G, Krass I, McLachlan AJ, Redfern J et al. Feasibility and cost effectiveness of stroke prevention through community screening for atrial fibrillation using iPhone ECG in pharmacies. The SEARCH-AF study. Thromb Haemost 2014;111:1167–76.] Additional examples of new technologies exist on the market with growing evidence to support their sensitivity and specificity
GP1	2.2	Individual comment - GP	Increased workload for practices & training needs for PNs/HCAs
GP1	2.2	Individual comment - GP	No. It would be, and has been proven to be, a clear win in terms of reducing AF induced strokes which are usually serious strokes with serious QOF consequences to the patient and their relatives and carers, and serious financial consequences to the patient, the NHS, and care support services, usually council.
GP1	2.2	Individual comment - GP	Yes – a number. It will detract focus from the reason that the patient attended and their agenda. It switches the consultation to a very doctored-centred model rather than one that concentrates on the patient's needs and hopes.
GP1	2.2	Individual comment - GP	Less time by primary care providers to deliver other services/meet patient expectations Unnecessary deaths due to haemorrhage; I am unconvinced that there has been much attention paid to the outcome of anticoagulated patients bleeding to death. the higher the numbers of people anticoagulated, the more will die of bleeding. What is the evidence base for patients in their 90's being anticoagulated in AF (I suspect there isn't one)
GP1	2.2	Individual comment - GP	more bleeds due to treatment and insecurity in doctors and patients, because the patient decision aid has been removed

ID	Proforma question no.	Stakeholder organisation	Comment
			and there is no clear EBM understanding of all the different AF conditions
GP1	2.2	Individual comment - GP partner	A recent study in the BMJ noted that patients who have IHD and Hypertension as well as AF did not show benefit from medication
GP1	2.2	Liverpool LA public health team	Diagnosis in those who do not regularly access health services for LTC management including those under secondary care service could lead to inequality.
GP1	2.2	London Borough of Redbridge	Although the likelihood is very small, patients that fit the criteria but have not had a consultation in the preceding 12 months would miss out on having their pulse checked manually.
GP1	2.2	London Diabetes Strategic Clinical Network	No
GP1	2.2	NHS Employers	Use of peripheral pulse will miss AF. False low reporting
GP1	2.2	NHS England	NHS England feel that as the indicator is worded (manual palpation) it may discourage the use of diagnostic devices such as Watch BP Home A and AliveCor which provide a suitable alternative to manual palpation.
GP1	2.2	Nightingale Valley Surgery.	finding asymptomtic pts. Which may not be appropriate to treat due to old age and frailty and se of anticoags.
GP1	2.2	Nottinghamshire County Council	For practices using a pulse monitor to detect AF (see above comment), specifying manual palpation only would be a backward step
GP1	2.2	Primary Care CVD Leadership Forum	As worded (manual palpation) it may discourage the use of diagnostic devices such as Watch BP Home A and AliveCor which provide a suitable alternative to manual palpation.
GP1	2.2	Public Health England	As worded (manual palpation) it may discourage the use of diagnostic devices such as Watch BP Home A and AliveCor which provide a suitable alternative to manual palpation.
GP1	2.2	RCGP	We feel there are a number of potential consequences:

ID	Proforma question no.	Stakeholder organisation	Comment
			1. Feeling the pulse is a process marker and not an outcome of care, and there is no link to whether or not the practice does anything about any abnormal findings. The process is likely to raise anxiety in patients with an irregular pulse not due to AF and result in over-medicalization and more appointments. (Individual comment) 2. Not all patients welcome screening and intervention. (Individual comment) 3. The ability to implement this depends on the funding possibly. All opportunistic screenings increase consultation length and therefore unexpected waits in a GP surgery, and some practices will manage this better than others. (CH) It could also lead to an increased workload for practices and training needs for PNs/HCAs. (Individual comment) 4. The wording used in the indicator – "manual palpation" - may discourage the use of diagnostic devices such as Watch BP Home A and AliveCor which provide a suitable alternative to manual palpation. (Individual comment) 5. Time will be wasted checking pulses that are normal. ECGs are oversensitive and will often pick up minor abnormalities of no significance but will have caused people to worry. It may also cause damage to the doctor-patient relationship if the patient feels that their doctor has a different agenda from their own. (RCGP Overdiagnosis Group)
GP1	2.2	Somerset CCG	No – if done in a long term condition clinic by an HCA at a "data gathering" appointment. This is not ideally placed for GP consultations when the patient may be presenting with

ID	Proforma question no.	Stakeholder organisation	Comment
			something irrelevant to checking pulse (ie it is important to keep GP consultations person-centred)
GP1	2.2	Stroke Association	As NICE points out in its indicator rationale, people aged 65 and over on average attend general practice around six times a year. Given the likelihood of those over 65 attending a consultation with their GP is so high, it is not unreasonable to perform a manual pulse palpitation on those who have presented on more than one occasion. However, the incidence of AF increases with age and the risk of AF doubles in every decade after the age of 55.[1] Those between the ages of 55 and 64 will, therefore, be at significantly increased risk of AF and this indicator does not allow for people in that risky age group to have their pulse routinely checked.
GP1	2.2	Thrombosis UK	Individuals with AF (undiagnosed), aged younger than 65 years and with one or more of the pre-existing conditions listed, are very likely to also carry a significant AF-stroke risk. This groups would benefit from being considered manual pulse palpation and assessment for anticoagulation if AF diagnosed.
Question 2.3: Do you think there is potential for differential impact (in respect of age, disability, gender and gender reassignment, pregnancy and maternity, race, religion or belief, and sexual orientation)? If so, please state whether this is adverse or positive and for which group.			
GP1	2.3	Association for the study of obesity	No
GP1	2.3	Association of British Clinical Diabetologists	No
GP1	2.3	Boehringer Ingelheim	No
GP1	2.3	British Holistic Medical Association	This looks like political correctness. What matters is for the clinician to have respect for people because of their difference, not because it is PC to enquire.
GP1	2.3	British Thoracic Society	No
GP1	2.3	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	People with disabilities or movement disorders that prevents a full minute pulse measurement.

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.3	Daiichi Sankyo UK	This condition is more common with age so it is likely to be picked up the older the patient.
GP1	2.3	Individual comment	No
GP1	2.3	Individual comment	No
GP1	2.3	Individual comment	Where are the resources so they do not to effect societies current delusions
GP1	2.3	Individual comment - Consultant Cardiologist	No differential impact
GP1	2.3	Individual comment - Consultant Cardiologist	No differential impact
GP1	2.3	Individual comment - GP	Those people who do not attend for review will be the ones who are not examined/pulse taken.
GP1	2.3	Individual comment - GP	No. there is increasing likelihood of AF with age, and with the usual risk factors of smoking, drinking, weight, diet, exercise and general lifestyle.
GP1	2.3	Individual comment - GP	don't know
GP1	2.3	Liverpool LA public health team	People with disabilities or movement disorders that prevents a full minute pulse measurement.
GP1	2.3	London Borough of Redbridge	No
GP1	2.3	London Diabetes Strategic Clinical Network	No
GP1	2.3	Medtronic Limited	Affects all patient groups
GP1	2.3	NHS Employers	Is there a risk for patients under 65 years with co-morbidities who do not have their pulse palpated? Could we be missing a proportion of eligible patients?
GP1	2.3	NHS England	The usual difficulty in achieving similar implementation in harder to reach groups would be anticipated but could be offset by greater focus on them. Health Checks have shown some encouraging uptake in these groups.
GP1	2.3	Nightingale Valley Surgery.	no.
GP1	2.3	Primary Care CVD Leadership Forum	Patients who are part of vulnerable groups such as those with Learning Disabilities and mental illness as well as younger men often have poorer access to care and may have fewer routine consultations.

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.3	Public Health England	Patients who are part of vulnerable groups such as those with Learning Disabilities and mental illness as well as younger men often have poorer access to care and may have fewer routine consultations.
GP1	2.3	RCGP	The RCGP feels there is potential for differential impact in the following situations: 1. By limiting the service to those who have had a consultation in the past year it may be that this will be more beneficial to cultures and groups who tend to be higher attenders and higher users of health care. This may lead to a differential impact. (Individual comment) 3. Equally, patients who are part of vulnerable groups such as those with learning disabilities and mental illness as well as younger men often have poorer access to care and may have fewer routine consultations and would therefore miss out on this check. (Individual comment) 2. There is a capacity issue with housebound patients because of the difficulty of checking and rechecking pulses and ECGs. Usually GPs rely on district nurses' help but they have recruitment and capacity issues. (Individual comment)
GP1	2.3	Royal College of Nursing	No
GP1	2.3	Somerset CCG	No
GP1	2.3	Stroke Association	It should be highlighted to GPs that men have a 1.5 times greater risk of developing AF than women. However, it should also be noted that AF-related strokes in women carry a greater risk of mortality than AF-related strokes in men. While the reason for this is not currently known, men's and women's relative risk should always be in doctors' minds.
GP1	2.3	Thrombosis UK	No

ID	Proforma question no.	Stakeholder organisation	Comment
Question 2.4: Do you have any general comments on this indicator?			
GP1	2.4	Association of British Clinical Diabetologists	People with diabetes are at increased risk of AF and heart failure. They should already be having an annual blood pressure measurement, enshrined in the 8 care processes.
GP1	2.4	Bayer plc	Bayer plc welcomes the inclusion of this indicator as a 'general practice indicators for quality improvement', and also recommends that it should go forward for the full development process for QOF indicators.
GP1	2.4	Boehringer Ingelheim	We welcome this indicator and are aware that a certain proportion of patients are missed and so we support all indicators to improve identification of patients to the AF register including via manual palpation.
GP1	2.4	British Holistic Medical Association	This is about good clinical practice and should not be linked with practice income. However, the caveats could be reassessed if there were a reliable and rapid bedside test to distinguish AF.
GP1	2.4	British Medical Association	This is a screening procedure and as such is excluded from provision under essential services as defined in the GMS contract. Screening procedures should only take place within the NHS if they have been approved by the NSC and resources have been provided. The National Screening Committee have investigated and rejected this: http://legacy.screening.nhs.uk/atrialfibrillation
GP1	2.4	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	it appears to be a good idea, we already doing it in Liverpool as part of local agreement – it has the potential of high impact if management of identified patients is effective
GP1	2.4	Digital Health & Care Alliance	This and the next indicator are classic cases where by embedding current practice in an indicator, NICE is preventing the introduction of new technology – eg the Alivecor peripheral+mobile phone recording enables diagnosis of AF in a single step. Please offer this as an alternative, to encourage

ID	Proforma question no.	Stakeholder organisation	Comment
			more doctors than already use the Alivecor device to try it and improve diagnosis, save costs, improve patient outcomes.
GP1	2.4	Individual comment	Screening in not within the remit of NICE and it should not be proposed by this mechanism.
GP1	2.4	Individual comment	Perfectly sensible.
GP1	2.4	Individual comment	good idea
GP1	2.4	Individual comment	We all use pulseoximeter now as it is quicker and can be done whilst we are doing something els as well.
GP1	2.4	Individual comment - Consultant Cardiologist	In summary, we recommend that the text regarding the diagnosis be expanded to: “Atrial fibrillation can be diagnosed by performing a manual pulse palpation to assess for an irregular pulse followed by an electrocardiogram (ECG) where an irregular pulse has been detected or in a single step using novel tools such as a clinically proven Smartphone ECG”
GP1	2.4	Individual comment - GP	It needs a push to make it happen. This has been well known for at least a decade and thousands of serious strokes could have been prevented.
GP1	2.4	Individual comment - GP	Yes. I am not aware of any evidence that has shown that screening for AF (and that is what this is) has been proven to reduce morbidity and mortality. Until this has been shown to be an effective screening method in a controlled trial, it should not be used.
GP1	2.4	Individual comment - GP	there need to be an explicit benefit –harm comparison for starting medication, which is currently missing?
GP1	2.4	Individual comment - GP partner	I note that the National Screening Committee has not recommended screening for AF. It would be good to know why their stance is being overruled.
GP1	2.4	Liverpool LA public health team	it appears to be a good idea, we already doing it in Liverpool as part of local agreement – it has the potential of high impact if management of identified patients is effective
GP1	2.4	London Diabetes Strategic Clinical Network	Perfectly sensible.

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.4	NHS Employers	Will this be a rolling 12 month period or 12 months from a set point?
GP1	2.4	NHS England	NHS England strongly welcomes this indicator as a third of people with AF are undiagnosed despite the high risk of poor outcomes and the availability of very effective preventive treatment. General practice has a major potential role in improving detection and treatment rates
GP1	2.4	NHS Sheffield Clinical Commissioning Group	We note the specific reference to the application of manual pulse palpation and that this is in accord with the NICE guideline recommendation. However, we ask NICE to consider acknowledging that pulse rhythm is often now measured using automated devices (such as the WatchBP device approved by NICE https://www.nice.org.uk/guidance/mtg13). In view of this is it necessary to specify in this indicator that practitioners ONLY employ manual palpation?
GP1	2.4	NICE	Is this necessary? As the rationale states, all these people should have their blood pressure measured and manual pulse palpitation should form part of any blood pressure measurement. In addition, it seems to overlap with IND GP2 (many of the people with these conditions will be aged 65 years and over and will have had at least one consultation in the preceding 12 months). The issues discussed there about screening are relevant here, too.
GP1	2.4	Nightingale Valley Surgery.	Not workable or practical.
GP1	2.4	Novartis Pharmaceuticals UK Ltd	There is a relationship between atrial fibrillation and heart failure. Though the relationship has not been fully determined, their coexistence can be explained to some degree by the presence of common risk factors such as age, hypertension, diabetes, and obesity, as well as valvular, ischemic, and nonischemic structural heart disease. (Entler, et al. Contemporary Reviews in Cardiovascular Medicine. Circulation. 2009; 119: 2516-2525). For this reason, patients

ID	Proforma question no.	Stakeholder organisation	Comment
			with hypertension, diabetes, CKD, PAD, stroke or COPD should also examined for undiagnosed heart failure. In order to diagnose heart failure, the NICE chronic heart failure guidelines recommends:
GP1	2.4	Primary Care CVD Leadership Forum	We strongly welcome this indicator as a third of people with Atrial Fibrillation (AF) are undiagnosed despite the high risk of poor outcomes and the availability of very effective preventive treatment. General practice has a major potential role in improving detection and treatment rates.
GP1	2.4	Public Health England	We welcome this indicator as a third of people with AF are undiagnosed despite the high risk of poor outcomes and the availability of very effective preventive treatment. General practice has a major potential role in improving detection and treatment rates.
GP1	2.4	RCGP	The RCGP has a number of general comments: 1. It would be useful to be able to verify the figure of 400,000 undiagnosed. There is no mention of this figure in the current NICE guideline (CG180). The earlier guideline (36) doesn't seem to be accessible from the website. (Individual comment) 2. Some practices are using sophisticated technology to screen for AF in the consultation (eg the diagnostick) and this should be included. (Individual comment) 3. BP monitors do not always pick up pulse irregularities so this requires a trained person to check the pulse. (Individual comment) 4. The check is worthwhile and these patients are all having an annual review so this isn't a significant amount of extra work.(Individual comment)

ID	Proforma question no.	Stakeholder organisation	Comment
			5. In some chronic disease management, GPs are trying to get this done online without the need for actual face-to-face consultation. It would be good if the indicator could take this into account e.g. manual pulse or technology-enabled pulse check. (Individual comment) 6. A third of people with AF are undiagnosed despite the high risk of poor outcomes and the availability of very effective preventative treatment. General practice has a major potential role in improving detection and treatment rates. It is not clear why the indicator is limited to those who have had at least one consultation – all patients with these conditions should expect to be seen at least once per year. (Individual comment) 7. This is a proposal to screen for atrial fibrillation. Screening was considered and rejected by the UK National Screening Committee in 2014 (see http://legacy.screening.nhs.uk/atrialfibrillation). NICE should not be promoting a screening activity that has been considered by the NSC and rejected. It will mean that the GP's agenda will be the focus of the consultation and not the patient's agenda. David Haslam said at the RCGP Conference in October that NICE wanted to focus more on what matters to patients. What matters to patients is that their GP is concentrating fully on the problem that they, the patient, has attended to discuss. Patients should be invited to take part in a screening programme and should be given the information beforehand to make an informed decision on whether they opt in or not. (RCGP Overdiagnosis Group)

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.4	Roche Diagnostics Ltd	We welcome the addition of this indicator to expand the scope of the clinical domain beyond the ongoing management of patients with diagnosed atrial fibrillation (AF). However, we feel this is an opportunity not only to record the proportion of patients receiving a manual pulse palpation, but also the proportion for whom a manual pulse palpation ultimately leads to the diagnosis of atrial fibrillation. Abnormal pulse findings could be the result of any number of conditions; however, the aim of this intervention is the earlier diagnosis of AF, on which the reward should be based.
GP1	2.4	Royal College of Nursing	Will need to check on training and competency of all primary care staff conducting and interpreting ECG data. Will need to examine educational programme for ECG interpretation and risk stratification.
GP1	2.4	Somerset CCG	It should be easily achievable if long term condition annual reviews are in place in the practice (to reiterate – this is best placed in an HCA data gathering appointment)
GP1	2.4	Stroke Association	We welcome this indicator. Opportunistic manual pulse palpation for over 65s (e.g. as part of routine chronic disease monitoring and management) have been shown as an effective and cost effective way to increase AF case finding in this higher risk population.[5]
GP1	2.4	Thrombosis UK	Due to the nature of the condition – paroxysmal / permanent / symptomatic / asymptomatic, we welcome this indicator to support early identification of undetected AF in high-risk groups.
Question 2.5: Can respondents comment on access to ECG services?			
GP1	2.5	Association for the study of obesity	No
GP1	2.5	Association of British Clinical Diabetologists	While access to a confirmatory ECG would not be a problem in secondary care, ABCD cannot comment on the availability on primary care.
GP1	2.5	British Holistic Medical Association	No comment

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.5	British Medical Association	ECG provision is not included as part of essential services in the GMS contract and needs separate commissioning at a local level.
GP1	2.5	British Thoracic Society	Varies across the country. Need to recognise it is also interpretation and not only performing. Practice staff may perform but need experienced clinical staff to review
GP1	2.5	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	Variety of new technological devices which also check pulse that are increasingly in use. It is important to define if acceptable whether ECG is full 12 lead or a single lead.
GP1	2.5	Daiichi Sankyo UK	If not available already, this should be made available at all practices.
GP1	2.5	Individual comment	No comment
GP1	2.5	Individual comment	Will affect ecg provision as likely to increase demand for ecgs
GP1	2.5	Individual comment	practices have these (or should)
GP1	2.5	Individual comment - Consultant Cardiologist	Adequate equipment access but not diagnostic interpretation education
GP1	2.5	Individual comment - GP	MUCH better 10 years ago, latterly deteriorating at a worrying rate. My consultant told me to get an ECG at A&E if I suspected AF, which I did several times. Pressure on A&E makes that impossible now. BUT I now have an AliveECG app on my iPhone where I can instantly take an ECG myself and email to the cardiac dept. But not all patients would be suitable/capable for that.
GP1	2.5	Individual comment - GP	not an issue
GP1	2.5	Individual comment - GP	it also needs ECG interpretation services and subsequent cardiology appointment availabilities
GP1	2.5	Liverpool LA public health team	Variety of new technological devices which also check pulse that are increasingly in use. It is important to define if acceptable whether ECG is full 12 lead or a single lead.
GP1	2.5	London Borough of Redbridge	The local CCG has commissioned same day ECG services available across GP Practices.
GP1	2.5	London Diabetes Strategic Clinical Network	No comment

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.5	Medtronic Limited	Access to ECG services is fragmented in primary care and expensive to access in secondary care.
GP1	2.5	NHS Employers	Most practices have ECG machines and all have access to them.
GP1	2.5	NHS England	Pulse assessment is a crucial first step in AF detection.
GP1	2.5	NHS Sheffield Clinical Commissioning Group	We would anticipate that this indicator would increase referral to secondary care for ECG measurement and/or confirmation of diagnosis, sand so there will be a financial impact to take account of.
GP1	2.5	Nightingale Valley Surgery.	Yes.
GP1	2.5	Primary Care CVD Leadership Forum	Pulse assessment is a crucial first step in AF detection.
GP1	2.5	Public Health England	Pulse assessment is a crucial first step in AF detection.
GP1	2.5	RCGP	The RCGP has the following comments about access to ECG services: 1. Many surgeries have immediate access to in-surgery ECGs and this is considered 'reasonable practice' for every primary care facility. (Individual comment) 2. ECG access is more difficult for housebound patients with the lack of capacity in district nursing (Individual comment), specially patients who are suspected to be in AF – few practices have the facility to do domiciliary ECGs. (RCGP Overdiagnosis Group) 3. The ability to interpret ECGs is variable and gaps provision and training need to be addressed by practices or CCGs. Although access to ECGs is essential for diagnosis, initial pulse assessment is the key step to be incentivised to improve detection of AF. (Individual comment)
GP1	2.5	Royal College of Nursing	This is variable depending on level of interest and understanding with individual practices. In the UK there are no formal guidelines regarding ECG training or interpretation and

ID	Proforma question no.	Stakeholder organisation	Comment
			clinical studies suggest that primary care physicians have difficulties interpreting all types of ECG compared with reference diagnoses made by cardiologists.
GP1	2.5	Somerset CCG	In house ECGs available in GP practices.
GP1	2.5	Stroke Association	Immediate access to ECG equipment can vary across practices, meaning some people are not being diagnosed with AF due to a lack of suitable equipment. This, however, need not necessarily be the case given the availability and low purchase cost of simple ECG equipment. There are also increasingly affordable and usable smartphone applications which are recommended and used by a growing number of practitioners. Many of these have been validated in published literature and should therefore be treated as a viable and reliable detection option.
GP1	2.5	The British Heart Foundation	Appropriate and timely access to ECG services is highly variable across the country. All practices should offer timely access to ECGs. There are some concerns related to competency in skills to read and interpret ECGs and we would recommend a minimum quality standard on training in interpretation.
GP1	2.5	Thrombosis UK	Immediate or prompt access to 12-lead ECG may vary across practices, however there are increasing numbers of single lead portable / hand held ECG devices at very low cost and with NICE advice, eg MIB35, that would be able to immediately capture ECG reading, record and support indication for referral for 12 Lead ECG, helping to manage volume and appropriate referral.
Question 2.6: People with chronic conditions were identified as an appropriate population for manual pulse palpation. Do stakeholders consider the range of the conditions covered in the indicator suitable?			
GP1	2.6	Association for the study of obesity	Obesity, as a disease, may benefit from inclusion in the list of conditions. Obesity is frequently associated with the conditions already listed and its inclusion may make the

ID	Proforma question no.	Stakeholder organisation	Comment
			inclusion criteria more effective in discovering all those at high risk of developing AF.
GP1	2.6	Association of British Clinical Diabetologists	Yes
GP1	2.6	Bayer plc	Bayer plc recommend that the manual pulse palpation in people with co-morbidities is not limited to those 65 years and over, as several of the co-morbidities constitute risk factors in themselves and blood pressure measurement is recommended for all people with these conditions. Indeed, the recommendations cited in the evidence base for IND-GP1 are not limited to people over 65.
GP1	2.6	Boehringer Ingelheim	Boehringer Ingelheim considers the range conditions to be suitable.
GP1	2.6	British Holistic Medical Association	The problem with such a list is that it discourages thinking about conditions outwith that list.
GP1	2.6	British Thoracic Society	No. strong association with recent onset AF and pneumonia. AF not uncommon in elderly sleep apnoea patients too.
GP1	2.6	Cheshire and Merseyside Directors of Public Health, Champs Public Health Collaborative	yes appropriate. It is good to incorporate the manual pulse check as an essential component of the annual review for people with these conditions.
GP1	2.6	Daiichi Sankyo UK	Yes
GP1	2.6	Individual comment	No. Pulse should be checked in symptomatic patients.
GP1	2.6	Individual comment	Yes, although seems sensible (and perhaps easier to implement) for all patients attending surgery?
GP1	2.6	Individual comment	Yes
GP1	2.6	Individual comment	Why manual when we have pulseoximeters.
GP1	2.6	Individual comment - Consultant Cardiologist	Believe all over 65s deserve to be screened as a pre-condition of being able to measure blood pressure correctly which is not possible with some devices accurately in a patient with background of AF
GP1	2.6	Individual comment - Consultant Cardiologist	Believe all over 65s deserve to be screened as a pre-condition of being able to measure blood pressure correctly which is not

ID	Proforma question no.	Stakeholder organisation	Comment
			possible with some devices accurately in a patient with background of AF
GP1	2.6	Individual comment - GP	Yes – tho' could have included people with SMI who are at risk of CVD and metabolic syndrome
GP1	2.6	Individual comment - GP	Non-presenting, i.e. hidden AF, in the over 65s is a real issue as people will not be anticoagulated so at high stroke risk. Yes, chronic conditions can make patients more liable to AF but these are the people more likely to have been palpated for other reasons such as hypertension. I repeat, screen ALL over 65s at flu jab clinics.
GP1	2.6	Individual comment - GP	Yes, but the issue is that if GPs are forced to focus on screening for AF then they are not focussing on patient-meaningful things.
GP1	2.6	Individual comment - GP	No. Those with relevant SYMPTOMS should be assessed for AF.
GP1	2.6	Individual comment - GP partner	A recent study in the BMJ noted that patients who have IHD and Hypertension as well as AF did not show benefit from medication
GP1	2.6	Liverpool LA public health team	yes appropriate. It is good to incorporate the manual pulse check as an essential component of the annual review for people with these conditions.
GP1	2.6	London Borough of Redbridge	Yes.
GP1	2.6	London Diabetes Strategic Clinical Network	Yes, although seems sensible (and perhaps easier to implement) for all patients attending surgery?
GP1	2.6	Medtronic Limited	Consider patients with mental health issues and dementia
GP1	2.6	NHS Employers	Yes
GP1	2.6	NHS England	The purpose of this indicator is to embed pulse assessment in the routine clinical reviews provided to people with long term conditions.
GP1	2.6	Nottinghamshire County Council	Consider including hypothyroidism and obstructive sleep apnea

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.6	Primary Care CVD Leadership Forum	The purpose of this indicator is to embed pulse assessment in the routine clinical reviews provided to people with long term conditions.
GP1	2.6	Public Health England	The purpose of this indicator is to embed pulse assessment in the routine clinical reviews provided to people with long term conditions.
GP1	2.6	RCGP	The RCGP feels that the range of conditions covered in the indicator is suitable but we suggest the following additions: 1. Obesity: There is a 2.4 fold increase in AF in the obese population. (Individual comment) 2. Serious mental illness – patients who are at risk of cardiovascular disease and metabolic syndrome both from the long term condition and the antipsychotic medication used. (Individual comment) 3.Ischaemic heart disease heart failure, asthma, dementia and non-diabetic hyperglycaemia. (Individual comment) 4. People with learning disabilities on long term antipsychotropic medication which may be used to control behaviour rather than treat a mental illness. (Individual comment)
GP1	2.6	Roche Diagnostics Ltd	Yes
GP1	2.6	Royal College of Nursing	Yes
GP1	2.6	Somerset CCG	Yes – it is important that the population would naturally be seen by an HCA for an annual long term condition review. It would not be appropriate to rely on an attendance to a GP appointment or for the GP to be tasked with the duty of checking the pulse (ie – maximising clinician performance and person-centredness must be paramount)

ID	Proforma question no.	Stakeholder organisation	Comment
GP1	2.6	Stroke Association	We would like to see health professionals carry out manual pulse checks as a matter of routine on as many patients as possible. While conditions such as hypertension are key risk factors in stroke, not everyone who has a stroke has an underlying chronic condition, or if they do, they may not be aware of it.
GP1	2.6	Thrombosis UK	We would suggest also including those diagnosed with Congestive Heart Failure– since this increases stroke risk and is a risk factor included in the approved CHADSVASc risk assessment.

Appendix B: Equality impact assessment

Protected characteristics		
• Age	• Pregnancy and maternity	• Sex
• Disability	• Race	• Sexual orientation
• Gender reassignment	• Religion or belief	

Note:

1) The characteristic of marriage and civil partnership is protected only from unlawful discrimination. There is no legal requirement to consider the need to advance equality and foster good relations.

2) The definition of direct discrimination includes less favourable treatment of someone associated with a person with a protected characteristic, such as the carer of a disabled person.

Socioeconomic factors

The relevance and nature of socioeconomic factors will vary according to the quality standard topic. They may include deprivation and disadvantage associated with particular geographical areas, or other geographical distinctions (for example, urban versus rural).

Other definable characteristics

Certain groups in the population experience poor health because of circumstances distinct from – though often affected by – sharing a protected characteristic or socioeconomic factors. The defining characteristics of groups of this sort will emerge from the evidence (although a quality standard topic will sometimes explicitly cover such a group). Examples of groups identified are:

- looked-after children
- people who are homeless
- prisoners and young offenders.

Indicator Equality Impact Assessment

Development stage: Consultation

Topic: Atrial fibrillation and pulse checking

1.1 Have any potential equality issues been identified during consultation, and, if so, what are they?
No equality issues impacting have been identified at this stage, although atrial fibrillation is more common in men than women, and the prevalence increases with age.

1.2 Have any population groups, treatments or settings been excluded from coverage by the indicators at this stage in the process. Are these exclusions justified – that is, are the reasons legitimate and the exclusion proportionate?
The indicators are relevant to people with, or at an increased risk of, atrial fibrillation and reflect the scope of the quality standard and clinical guideline on which they are based**.**

1.3 Do any of the indicators make it more difficult in practice for a specific group to access services compared with another group? If so, what are the barriers to, or the difficulties with, access for the specific group?
Indicator GP1 attempts to identify people who may be at an increased risk of atrial fibrillation. Stakeholders highlighted that it may be difficult to take a full pulse measurement in people with physical disabilities and movement disorders. Comments also highlighted that these indicators are dependent on people regularly attending review, but some groups (such as people with learning disabilities and mental health problems) may be less likely to attend regular reviews. Indicator QOF2 focuses on discussions with people who have atrial fibrillation. Consultation comments highlighted people with cognitive problems and those who do not speak English may find it difficult to understand these often clinically complex discussions, and therefore reasonable adjustments should be made.

1.4 Is there potential for the indicators to have an adverse impact on people with disabilities because of something that is a consequence of the disability?
Consultation comments on indicator GP1 highlighted that it may be difficult to take a full pulse measurement in people with physical disabilities and movement disorders.

Completed by lead technical analyst Paul Daly using the equalities impact form presented to committee in June 2016

Date 5 May 2017

Approved by NICE quality assurance lead _____

Date____