Protocol: "What's your beat?": Reducing stroke risk through enhanced public awareness and screening for AF

Synopsis

Stroke continues to be a major public health issue. It is the third most common cause of death. The financial cost in Australia is estimated to be $5 billion each year. Tasmania and South Australia are the worst affected States. Atrial fibrillation (AF), the most common sustained cardiac arrhythmia, is a major modifiable risk factor for stroke. AF is associated with a five times increased risk of stroke and is responsible for up to 25% of strokes in elderly adults. Recently, international guidelines and expert consensus statements have recommended more widespread screening for AF in those aged 65 years or older. The case is compelling - AF is common and a leading cause of stroke. Unfortunately, AF often has no symptoms and is commonly undiagnosed or untreated by the time stroke occurs. AF-related strokes are associated with significant morbidity, mortality, and healthcare costs, yet they are highly preventable with the use of warfarin or newer anticoagulant drugs. Given the availability of effective therapy, along with accurate and inexpensive screening technology, population-based AF screening has the potential to become an important public health program. In older age groups, identification and management of AF is the most significant way to prevent stroke.

Internationally, there have been recent recommendations for more widespread screening for AF in those aged 65 years or older, as a cost-effective strategy for stroke prevention. This project will raise public awareness of AF and improve its detection, and hopefully lessen the burden of stroke in Tasmania. We intend to screen approximately 3,000 Tasmanians aged 65 years or older, and without previously diagnosed AF. Screening will take place throughout most of 2018 at a range of community venues across Tasmania.

If the presence of AF is suspected, the project team will advise the participant and ensure they understand it is not a definitive diagnosis and that they should make an appointment to see their GP for review. They will be given specific information to take to their GP. The GPs of individuals with a suspected diagnosis of AF upon screening will also be directly contacted by telephone. The project team will contact each participant with suspected AF approximately one month after the screening, to ensure they have not been lost to follow-up and to determine the outcome of the initial screening.

Aims:

The project objectives are to:

1. Successfully develop and implement an AF public screening and education program across Tasmania.
2. Promote community awareness of AF through talks, screening events and marketing.
3. Ensure that individuals with a tentative diagnosis of AF are followed up by their GP.
4. Determine evaluation outcomes from the AF public screening program e.g. rates of detection of previously undiagnosed AF (with analyses by age and gender etc.), rates of false positives based on subsequent GP assessment, AF management initiated.

Justification:

The project's over-arching goal is to reduce the burden of stroke in Tasmania through a reduction in the incidence of strokes from AF. AF-related cardiovascular mortality and morbidity, including cardiovascular deaths, heart failure, stroke, and hospitalisations, remain unacceptably high in Tasmania. With South Australia, the state has the highest rate of strokes. Tasmania also has the highest number of people living, per capita, who have survived a stroke. Most (65%) stroke survivors suffer ongoing disability, which impedes their ability to carry out daily living activities. In monetary terms alone, each averted stroke saves the community almost $100,000.

In older age groups, identification and management of AF is the most significant way to prevent stroke. In the elderly, stroke prevention relies firstly on timely identification and diagnosis of AF. The overall benefit for

the community from this initiative will be improved awareness and detection of undiagnosed AF in older Tasmanians, and a subsequently reduced burden of stroke (mortality, morbidity, avoided hospitalisations).

This project will tackle the well-documented poor awareness and under-detection of this often 'silent' condition, which is becoming more prevalent and has been described as a global epidemic. Improving stroke prevention in AF has numerous personal and societal benefits. Screening for unknown AF and initiation of anticoagulation has significant potential to prevent strokes. Given that AF is responsible for up to 25% of strokes in elderly adults and up to 25% of these had undiagnosed AF, the timely diagnosis and management of AF has the potential to prevent up to approximately 6% of all strokes in the elderly. This would decrease the total number of strokes by 60 per annum if applied across Tasmania.

Importantly, we will also raise community awareness of AF, through talks, advertising and media coverage, and the provision of educational materials to all screened individuals.

Over 3,000 older Tasmanians will benefit through direct screening and many more through raised awareness (and consultation with their GP). AF will be detected in about 50 of those screened; the remainder will benefit from reassurance.

While the adoption of routine screening for AF within primary and specialist care settings would be useful, community screening programs to detect undiagnosed asymptomatic AF in those aged 65 years and older may be necessary to make the full impact on stroke prevention, given the fact that such individuals are unlikely to present to a doctor with symptoms.

Previously, screening for unknown AF mainly utilised pulse palpation followed by 12-lead electrocardiogram (ECG) recording; an approach that is not practical on a large scale. In practice currently, if the heart rate is recorded by a GP, it is usually performed by a standard automated blood pressure device, so an irregular pulse will go undetected. The time taken to record the pulse correctly would occupy a substantial portion of the already brief consultation period, and means both doctor and patient sitting still and silent for a minute (the recommended length of pulse palpation for detection of AF). Further, although pulse palpation has a reasonable sensitivity, specificity is low. Compared with the Microlife device to be used here, there is the likelihood of additional costly and time-wasting tests being ordered to exclude or confirm the diagnosis with a higher rate of false positives.

Further background information is attached as Appendix A.

Methods

This project will implement a combined strategy of public education and screening to address the under-detection of AF. We will screen at least 3,000 older Tasmanians. Screening sessions will take place on approximately 100 occasions throughout most of 2018 at a range of community and organisation venues across Tasmania – including major shopping centres and Bunnings Warehouses (a partner of the Stroke Foundation), as well as at events such as Agfest. Educational talks on AF will accompany many of these events. The peak screening periods will be during August-October, and will include Stroke Week, along with Seniors Week in October. The second Atrial Fibrillation Awareness Week occurs in July, providing another opportunity to promote the project. Availability of screening will be communicated via the partner organisations and local media sources prior to the events, and with posters

and flyers at the venues. There will also be prior liaison with the State's GPs via both Primary Health Tasmania and the RACGP.

People eligible for screening (aged 65 years or older, without known AF) will be provided with written information about the project, and informed consent will be obtained prior to conducting the screening assessment. International evidence indicates that single-timepoint screening of people aged 65 or over in the clinic or community appears justified based on yield of screening and likely cost-effectiveness. Individuals aged 65 or over have a greater incidence of AF and higher risk of stroke if they develop AF. Anticoagulant treatment will also most likely be required in virtually all of those subsequently determined to have AF.

A brief medical history will be taken (i.e. any symptoms, current medical conditions and medications). Individuals with an existing cardiac arrhythmia/pacemaker will be excluded. The screen will utilise an automatic blood pressure device that incorporates a specific algorithm to detect AF (Microlife WatchBP Home-A). The UK National Institute for Health and Care Excellence has recommended this device for AF screening. It has high sensitivity and specificity, and has been used in programs internationally. A registered health practitioner or health student will perform the screenings.

Every participant will be provided with educational information on AF (including Stroke Foundation resources). If the presence of AF is suspected, the project team will advise the participant and ensure they understand it is not a definitive diagnosis and that they should make an appointment to see their GP for review. They will be given specific information to take to their GP. The GPs of individuals with a suspected diagnosis of AF upon screening will also be directly contacted by telephone. A follow-up 12-lead ECG is the current gold standard used to confirm the presence of AF. The project team will contact each participant with suspected AF approximately one month after their screening, to ensure they have not been lost to follow-up and to determine the outcome of the initial screening.

Because the Microlife device also accurately measures blood pressure, any participants with high readings (above 160/100 mmHg) will also be provided with information on hypertension and referred to their GP.

The screening procedure is simple, non-invasive and painless, so the risk of harm is minimal. The process is quick, and the high sensitivity and specificity means the outcome can bring swift and reliable assurance; more than 95% of those screened can be reassured at the point of testing.

The study data will be largely presented as a simple descriptive summary of the outcomes from the AF public screening program, incorporating information collected at the one-month follow-up of those participants with suspected AF e.g. rates of detection of previously undiagnosed AF (with analyses by age and gender etc.), rates of false positives based on subsequent GP assessment, AF management initiated. We will also perform a simple economic analysis of the screening program, based on the costs and the anticipated reduction in healthcare costs associated with strokes prevented by the program.

The education and screening will be undertaken across Tasmania. Sites will include venues of the partner organisations, shopping centres and Bunnings Warehouses, as well as at events such as Agfest, councils' programs for older residents (e.g. Positive Ageing), Probus meetings, University of the Third Age, and the CWA Annual Conference. Community support for the project has been demonstrated via the enthusiastic collaboration of the Stroke Foundation, Heart Foundation and COTA, three key community organisations of relevance to the project topic (please see Appendix B for support letters).

The endorsement and active involvement of these key organisations is of paramount importance in achieving the project aim of raising public awareness of AF via the media and educational and screening sessions. The organisations have committed to active collaboration in promoting the project and its goals, providing additional clinical input if needed (Stroke Foundation) and reviewing materials and project plans, providing educational materials wherever suitable and enabling access to community groups and forums.

The Stroke Foundation's relationship with Bunnings Warehouses will be invaluable in facilitating access to stores and the public across Tasmania for screening and promotional events.

Improving stroke prevention through timely identification of atrial fibrillation

Background

In Australia, stroke continues to be a major public health issue. It is the third most common cause of death. In 2017, there will be more than 55,000 new and recurrent strokes - that is, 1000 strokes every week or one stroke every 10 minutes. Most (65%) stroke survivors suffer ongoing disability that impedes their ability to carry out daily living activities unassisted. The financial cost of stroke in Australia is estimated to be $5 billion each year.[3] Tasmania and South Australia are the worst affected States in Australia, with approximately 250 strokes for every 100,000 people per annum.[4]

Atrial fibrillation (AF), the most common sustained cardiac arrhythmia,[5] is one of the major modifiable risk factors for ischaemic stroke. AF is associated with a five times increased risk of stroke and is responsible for up to 25% of strokes in elderly adults. Furthermore, strokes due to AF are associated with nearly twice the risk of mortality and significantly more neurological impairment than strokes not associated with AF.[1]

Age is the most important predictor of the development of AF; the risk of AF, even in the absence of other cardiovascular diseases, progressively increases after age of 40 years with steeper increases above 65 years.[5-7] The prevalence of AF is approximately 5% in people over 60 years of age and 10% in people over 75 years of age. Adults aged over 40 years have a one in four lifetime risk of developing AF.[8] Approximately one-third of all patients who have AF are aged 80 years or older, and it is estimated that by 2050, half of all patients who have AF will be in this age group.[7,10] With an increasing global incidence, there are almost five million new cases of AF annually and it is projected that the number of affected individuals will increase continuously in an exponential manner,[8] reflecting ageing of the population and an increasing prevalence of cardiovascular comorbidities associated with AF.[1,6] Not surprisingly, AF is often described as a growing epidemic, associated with significant morbidity and mortality.

AF contributes to increased mortality and morbidity, especially from stroke, systemic thromboembolism and heart failure (2-3 fold increased risk), as well as impaired quality of life.[8,9] The risks appear to be the same for paroxysmal and chronic AF. In addition, evidence is accumulating of an association between the presence of chronic AF and increased risk of 'premature' dementia, although the pathogenic link is unclear.[8,11,12] Overall, AF is associated with a nearly two-fold increased risk of mortality.[8,9]

Approximately 15% of all strokes are associated with AF, and the association increases steadily with age, from 2% of all strokes for patients aged 50 to 59 years, to almost one-quarter of all strokes for patients aged 80 to 89 years; about 5% of individuals with AF suffer an ischaemic stroke each year.[2] Stroke outcomes are also worse in patients with AF, and more so in the elderly - mortality is higher (1.5 - 3 times greater), hospital stays longer and the likelihood of discharge to a patient's own home lower in stroke patients with AF compared to patients without AF.[5,8,9,13]

Oral anticoagulation therapy with either warfarin or one of the direct oral anticoagulants (DOACs), which include a direct thrombin inhibitor (dabigatran) and factor Xa inhibitors (rivaroxaban, apixaban, and edoxaban – the latter not being available in Australia), is the most effective way to prevent thromboembolic disease in patients with AF and is recommended in most elderly patients (and all aged 75 years or older),[2,8,9,14] It has been conclusively demonstrated that long-term anticoagulation therapy can reduce the risk of stroke by approximately two-thirds in patients with non-valvular AF.[2,8,9,14]

At least 30 million people worldwide carry a diagnosis of AF, and many more suffer from undiagnosed, subclinical, or 'silent' AF. AF-related cardiovascular mortality and morbidity, including cardiovascular deaths, heart failure, stroke, and hospitalisations, remain unacceptably

high.[9] During the fifth Atrial Fibrillation Network/European Heart Rhythm Association consensus conference in 2015, more than 50 international experts agreed on the important unmet clinical and research needs in the evaluation and management of patients with AF. Two major issues with respect to "Improving the quality of AF treatment" were (i) timely diagnosis of AF and (ii) improving the quality of stroke prevention in patients with diagnosed AF.[15] These issues essentially reflect that stroke prevention relies firstly on early and timely identification and diagnosis of AF, and secondly on appropriate guideline-directed anticoagulation to substantially reduce the risk of ischaemic stroke. The consensus document recommended more widespread screening for AF in those aged 65 years or older. The case is compelling - AF is the most common cardiac arrhythmia and a leading cause of stroke. AF-related strokes are associated with significant morbidity, mortality, and healthcare costs, yet they are highly preventable. Unfortunately, AF is often undiagnosed or untreated by the time stroke occurs. Given the availability of effective therapy and evidence-based guidelines for its use, population-based AF screening has the potential to become an important public health program.[16-20] In older age groups, AF becomes the most common cause of stroke; Identification of AF and appropriate institution of anticoagulation is therefore the largest potential way to prevent stroke in this population.[21]

Importantly, AF in the elderly tends to be asymptomatic and the first presentation with AF is often in association with a devastating AF-related complication.[6-10] The diagnosis is commonly made incidentally during an evaluation for other reasons. It has been estimated that among patients with recognised AF, one third has no appreciable symptoms.[22-24] If untreated, the prognosis of asymptomatic AF is characterised by a high risk of stroke and death, which could have been reduced by appropriate oral anticoagulation.[15] Over a median follow-up period of 7.6 years, O'Neal et al. found that members of the general population who were asymptomatic and unaware that they had been diagnosed with AF had almost a doubled risk of death (95% CI: 1.50-2.52) compared with AF participants who were aware of their diagnosis.[25]

A total of 3119 patients with diagnosed AF were enrolled in the EurObservational Research Programme - Atrial Fibrillation (EORP-AF) Pilot General Registry, and 1237 (39.7%) of these were asymptomatic. Mortality at 1 year was more than 2-fold higher in asymptomatic patients compared with symptomatic patients (9.4% vs 4.2%, $P < .0001$).[23] In the Mayo Clinic study in Olmsted County, Minnesota, 25% of 4618 residents with confirmed AF were asymptomatic at the time of diagnosis, but those patients were 3 times as likely to have sustained an ischaemic stroke prior to diagnosis than those with symptoms.[26] In a UK study of 5555 patients with incidentally detected asymptomatic AF, the adjusted stroke rate among untreated patients (n = 1460) was 4% in 1.5 years and all-cause mortality was 7%, whereas among patients treated with warfarin (n = 2492), the adjusted stroke rate and the death rate were just over 1% and 4%, respectively.[19,27]

Silent AF first presenting with ischaemic stroke accounts for at least 10%, and perhaps up to 25%, of all ischaemic strokes, and widespread screening could substantially reduce this figure.[15-20,22-24] In the nationwide Swedish stroke register 27% of the AF-related strokes between 2005 and 2010 (7623 of 28 420 events for which timing of AF onset was known) occurred among patients with newly diagnosed AF.[28] This latter group represents a sizeable proportion of all strokes, which may have been prevented had asymptomatic AF been detected early by screening and appropriately treated.[19]

Because stroke might be the first manifestation of silent AF, opportunistic screening for unrecognised AF in individuals aged 65 or over has been advocated,[15-21,30] with support from a Cochrane review[31] and incorporation as a recommendation in the European atrial fibrillation guidelines.[32] Opportunistic screening was more effective than routine clinical practice and probabilistic sensitivity results indicated that there was a probability of approximately 60% that screening from the age of 65 years was cost-effective in both men and women.[30,33]

Previously, screening for unknown AF mainly utilised pulse palpation followed by 12-lead electrocardiogram (ECG) recording, an approach that is not likely to be practical on a large scale.[8] In practice currently, if the heart rate is recorded during a visit by a general practitioner (GP), it is usually performed by an automated sphygmomanometer rather than by auscultation over the brachial artery, so an irregular pulse will go undetected.[34] The time taken to record the pulse correctly would occupy a substantial portion of the already brief consultation period, and means both doctor and patient sitting still and silent for a minute (the recommended length of pulse palpation for detection of AF).[21] Even when the pulse is recorded, it is common for it to be taken for 15 seconds and multiplied by four, decreasing the likelihood of detecting AF.[21] Further, although pulse palpation has a reasonable sensitivity (0.92, 95% CI 0.85–0.96), specificity is low (0.82, 95% CI 0.76–0.88). Compared with modern single lead ECG devices (sensitivity 0.97, 95% CI 0.95–0.99; specificity 0.95, 95% CI 0.88–0.98) or automated blood pressure monitors (sensitivity 0.98, 95% CI 0.92–10.97; specificity 0.95, 95% CI 0.88–0.98), there is the likelihood of additional costly and time-wasting tests being ordered to exclude or confirm the diagnosis with a higher rate of false positives.[21]

The past decade has witnessed a surge in the number and sophistication of diagnostic tools for AF.[15,16,18,21,34] The new technologies include hand-held diagnostic quality single-lead ECGs, or the oscillometry and photo-plethysmography pulse methods, which have been tested and validated in a number of studies with demonstrated high diagnostic accuracy.[18,19,21,35-37] These allow easy cardiac rhythm assessment by lay persons and patients, either by pulse irregularity (oscillometry or smart phone camera) or by analysis of an ECG rhythm strip, and offer better, less costly methods for more effective and more broadly-based AF screening.[15] Oscillometric blood pressure monitors with an AF detection function based on pulse irregularity offer high sensitivity (92% to 100%) and specificity (90% to 97%) and are superior to pulse palpation.[18,34] The devices can be used by health workers or patients, provide single-timepoint or multiple patient-activated recordings, and have been subjected to health technology assessments. Finger photoplethysmography, using a smartphone camera and flash, has sensitivity 93% and specificity 98% for AF detection using proprietary algorithms. [18,34] These new approaches facilitate population screening targeted at individuals aged 65 or over, who have a greater incidence of AF and higher risk of stroke if they develop AF.[15] Anticoagulant treatment will most likely be required in virtually all of those subsequently determined to have AF.[19] With all these novel methods, a follow-up 12-lead ECG (current gold standard) is used to confirm the presence of AF.

In addition, economic assessments indicate that this approach is likely to be cost-effective for stroke prevention;[16-21,36-38] single-timepoint screening of people aged 65 or over in the clinic or community appears justified based on yield of screening and likely cost-effectiveness.[18] While the adoption of routine screening for AF within primary and specialist care settings would be useful, community screening programs to detect undiagnosed asymptomatic AF in those aged 65 years and older may be necessary to make the full impact on stroke prevention, given the fact that such individuals are unlikely to present to a doctor with symptoms.[39]

Compared with other screening tests, for example breast screening, the screening process for AF is quick, painless, and the high sensitivity and specificity means the outcome can bring swift and reliable assurance to the patient.[21] Overall, AF screening fulfils the World Health Organisation's Wilson and Jungner validity criteria for screening programs criteria.[18-21,40]

In one highly successful mass screening trial (STROKESTOP), half of the 75- to 76-year-old population in 2 Swedish regions (over 13,000 people) were invited to a screening program for AF.[41] Participants without a previous diagnosis of AF underwent intermittent ECG recordings over 2 weeks. If AF was detected, participants were offered oral anticoagulation therapy. Over half the eligible inhabitants participated 7173 (53.8%). The use of intermittent ECGs increased new AF

detection 4-fold. In total, 5.1% (95% CI, 4.6-5.7) of the screened population had untreated AF; screening resulted in initiation of oral anticoagulation treatment in 3.7% (95% CI, 3.3-4.2) of the screened population. More than 90% of the participants with previously undiagnosed AF accepted initiation of oral anticoagulation therapy.[41]

In an Australian study of 1000 customers over 65 years in community pharmacies, 1.5% were found to have previously undiagnosed AF, when pharmacists used a smartphone-based single-lead ECG.[37] The automated ECG algorithm showed 98.5% (CI, 92-100%) sensitivity for AF detection and 91.4% (CI, 89-93%) specificity. The estimated incremental cost-effectiveness ratio of extending smartphone ECG screening into the community for persons from ages 65 through 84 years was $4066 per quality-adjusted life-year gained, and $20 695 per stroke prevented; these estimates that are much less than the usual cost-effectiveness thresholds of "willingness to pay" of health funders.[19] In addition to being feasible and cost-effective, the AF screening was also well accepted by consumers and pharmacists.[42]

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Registered Charity
ABN 42 006 173 379

83 Melville Street
Hobart TAS 7000

Telephone 03 8691 3820
strokefoundation.org.au

13th September 2017

Gregory Peterson
Chief Investigator
University of Tasmania

Dear Greg,

"WHAT'S YOUR BEAT?": REDUCING STROKE RISK THROUGH ENHANCED PUBLIC AWARENESS AND SCREENING FOR ATRIAL FIBRILLATION

The Stroke Foundation is supportive of the efforts to establish a screening programme for Atrial Fibrillation in Tasmania. We welcome and support this application and recognise this priority area of research.

The Stroke Foundation is a national charity that partners with the community to prevent, treat and beat stroke. It is dedicated to empowering health professionals to deliver high quality best practice care to stroke patients. The Stroke Foundation advocates for better systems, processes and resources to help health professionals deliver world class stroke care.

As the voice of stroke in Australia, the Stroke Foundation plays a vital role in supporting Australian researchers as they work towards the next innovation in stroke prevention, treatment and recovery.

Atrial Fibrillation is associated with a five times increased risk of stroke and is responsible for up to 25% of strokes in adults over 65 years of age. International guidelines and expert consensus statements have recommended more widespread screening for Atrial Fibrillation. The Stroke Foundation supports the need to recognise and treat Atrial Fibrillation to reduce the high burden of stroke in Tasmania.

We are look forward to further developments of this important work.

Sincerely,
Toni Aslett
Executive Director Stroke Services

Heart Foundation of Australia
(Tasmania Division)
ABN 17 009 481 707

Level 1/89 Brisbane Street
Hobart TAS 7000

GPO Box 1312 Hobart
TAS 7001

Telephone (03) 6224 2722

For heart health information
1300 36 27 87
www.heartfoundation.org.au

Mrs Sally Darke
Chairperson
Tasmanian Community Fund
GPO Box 1350
HOBART TAS 7001

22 September 2017

Dear Mrs Darke,

RE: UTAS application for Round 35 (medium) Tasmanian Community Funding to support the project "What's your beat?": Reducing stroke risk through enhanced public awareness and screening for atrial fibrillation

This letter is to confirm the enthusiastic support of the Heart Foundation for the grant application from Professor Greg Peterson (Co-Director, Health Services Innovation Tasmania, School of Medicine), to raise public awareness of atrial fibrillation and to opportunistically screen for it in Tasmania.

The National Heart Foundation is Australia's leading heart health charity, and we have been dedicated to saving lives by making a difference to the heart health of all Australians for nearly sixty years. Our work to reduce premature death and suffering from heart, stroke and blood vessel disease is strongly supported by the community, and we work closely with the Stroke Foundation on shared issues.

Atrial fibrillation is a common and important disturbance of the electrical system of the heart. It is one of a number of disorders commonly referred to as 'arrhythmias' or 'dysrhythmias', in which the heart beats with an abnormal rhythm. If not recognised and correctly treated, atrial fibrillation can result in significant problems, including stroke and heart failure.

The University of Tasmania contributes significantly to research, and to improving health care in this State. It is also well known for conducting community-based studies and interventions. The Heart Foundation supports the need to recognise and treat atrial fibrillation to reduce the risk of stroke and heart failure in Tasmania.

Please don't hesitate to contact our Health Director, Gillian Mangan on 6220 2206 or by email at gillian.mangan@heartfoundation.org.au if you wish to discuss our support further.

Sincerely

p.p. Graeme Lynch
CEO – Heart Foundation Tasmania.

COTA
For older Australians

COTA TAS
'Westella' 181 Elizabeth Street
Hobart TAS 7000

www.cotatas.org.au
ABN 71 718 804 307

P:(03) 6231 3265
F:(03) 6234 3515
admin@cotatas.org.au

18 September 2017

Tasmanian Community Fund
GPO Box 1350
Hobart, 7001

To whom it may concern,

Tasmanian Community Fund Grant Application: "What's your beat?:" Reducing strokes through AF awareness and screening

Stroke causes significant mortality and morbidity in Tasmania and affects not only the lives of those who suffer the stroke, but also their families, friends and support networks. The majority of Tasmanians who will have a stroke are over 60 years of age, and the number of people affected by stroke will only increase as our population continues to age.

COTA Tasmania is the peak organisation representing the rights of older Tasmanians and has been their voice for over 50 years. COTA Tasmania is committed to improving the health of older Tasmanians through education, action and by raising awareness. By promoting and supporting the delivery of the "What's your beat?" project, COTA believes that we will contribute to bettering the health and wellbeing of older Tasmanians and their support networks.

COTA Tasmania will support this project by raising awareness of the screening program and educational talks, and distributing educational resources through our own activities, social media, newsletters and networks. We will also provide assistance at screening sessions. Once completed, we will share the findings of the study throughout our state and national networks.

We will be pleased to work with the University of Tasmania to promote and support the "What's your beat?" project and its findings.

Yours sincerely

Sue Leitch

Chief Executive Officer

Copy to: Prof Gregory Peterson
Co-Director, Health Services Innovation Tasmania
School of Medicine, University of Tasmania
Private Bag 1, Hobart TAS 7001