# SCREENING FOR ATRIAL FIBRILLATION IN CANADIAN PHARMACIES IS A COST-EFFECTIVE STRATEGY

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## ABSTRACT

### Background

Screening for undiagnosed atrial fibrillation (AF) may lead to treatment with oral anticoagulation therapy which can decrease the risk of ischemic stroke. We conducted an economic evaluation of the Program for the Identification of 'Actionable' Atrial Fibrillation: in the Pharmacy Setting (PIAAF-Pharmacy) which screened participants 65 years or older at 30 community pharmacies in Ontario and Alberta between October 2014 and April 2015. AF screening was performed using a 30-second single lead ECG device (HeartCheck, CardioComm). A total of 1145 participants were screened and the prevalence of 'actionable' AF was 2.5% (95% CI, 1.7-3.6), of these, 93% were newly diagnosed AF. To better inform decision-makers, we conducted an economic evaluation of this program.

### Methods

A two-part decision model was used to evaluate the short and long-term costs and quality-adjusted life years (QALYs) of a pharmacy screening program for AF compared to no screening. Data from the PIAAF-Pharmacy study was used for the short-term model whereas literature data were used to extrapolate the benefits of the PIAAF-Pharmacy study in the long-term model. Costs and QALYs were calculated from a payer perspective over a lifetime horizon and were discounted at 5%/year.

### Results

Screening for AF in pharmacies was associated with higher costs ($2) and higher QALYs (0.0042) compared to no screening, yielding an incremental cost per QALY gained of $375. Univariate and probabilistic sensitivity analyses confirmed that screening AF in a pharmacy setting was a cost-effective strategy.

**Interpretation**

Our economic results support screening for AF in Canadian pharmacies.

## INTRODUCTION

Atrial Fibrillation (AF) is the most common abnormal rhythm disorder[1] and the leading cause of stroke.[2] AF-related stroke is preventable with oral anticoagulation therapy (OAC)[3, 4] however AF is often unrecognized or known but sub-optimally treated (hereafter referred to as 'actionable' AF).[5] There are sparse data to suggest AF screening strategies are cost-effective.[6, 7] The Program for the Identification of 'Actionable' Atrial Fibrillation in the Pharmacy Setting (PIAAF-Pharmacy) was the first community AF screening program for individuals 65 years of older attending pharmacies in Alberta and Ontario using a handheld single lead ECG device (HeartCheck, CardioComm)[8]. Amongst the 1145 study participants, 2.4% were newly diagnosed with AF. PIAFF-Pharmacy was modelled after the Cardiovascular Health Awareness Program.[9, 10] This analysis presents the economic evaluation of the PIAAF-Pharmacy study to better inform decision makers about the value of screening for AF in Canadian pharmacies.

## METHODS

### *Study overview*

A decision analytical model was used to estimate the short-term and long-term costs and effects of the PIAAF-Pharmacy screening program compared to no screening. The model was comprised of two parts. The first part of the model captured the short-term costs and outcomes of the screening program itself based on data from the PIAAF-Pharmacy study[8]. Based on relevant literature, the second part of the model captured the long-term costs and benefits associated with stroke prevention resulting from the diagnosis of previously unrecognized AF. In the absence of dominance (e.g. one

strategy is more effective and less costly than the other)[11], an incremental cost per quality-adjusted life years (QALYs) gained was calculated to compare the two strategies (AF screening in pharmacy versus no screening). A lifetime horizon was used in the analysis, with costs and outcomes occurring in the future being discounted at an annual rate of 5%.[11] The analysis was taken from a third-party public payer perspective. Univariate and probabilistic sensitivity analyses were conducted to deal with uncertainty in model inputs.

***Model structure***

Figure 1a provides a graphical representation of the short-term decision model. In the screening arm, individuals with AF are identified based on the positive findings of the single lead ECG and its predictive positive value (PPV) to identify AF. A proportion of these newly diagnosed individuals will receive oral anticoagulants (OACs) for the prevention of stroke. For the "no screening" arm, individuals with undiagnosed AF are assumed to remain undiagnosed and therefore do not receive OAC therapy. Based on the short-term model outcomes, individuals enter the long-term model in one of three health states (Figure 1b): 1) no AF; 2) AF receiving OACs; and 3) AF not receiving OACs. Individuals with AF are at risk of ischemic stroke, intracranial hemorrhage (ICH), and non-ICH major bleeding. ICH is further divided into hemorrhagic stroke and non-hemorrhagic stroke. Individuals with AF who are on OACs are assumed to be at lower risk of ischemic stroke but at higher risk of ICH and non-ICH major bleeds compared to those not receiving OACs. Transitions between health states can occur every 3 months.

***Short-term model parameters***

Based on the PIAAF-Pharmacy study results[8], it was assumed that 2.4% of individuals in the screening group would test positive for AF for the first time. The PPV (65.4%) of the single lead ECG used in the study was based on unpublished data from a similar AF screening study conducted in physician offices (as opposed to pharmacies) in which all single lead ECG positive AF were followed up with a 12 lead ECG and a Holter monitor if negative on the 12 lead ECG[12]. The PPV was applied to this percentage to calculate the percentage of screened individuals that have AF and are newly diagnosed (2.4% x 65.4%= 1.6%). It was assumed that 71% of newly diagnosed AF individuals will receive OAC treatment for the prevention of stroke based on the fact that 5 out of the 7 individuals in PIAAF-Pharmacy diagnosed with AF saw a GP within 6 weeks of the screening date and received an OAC prescription by the end of the 3 month study follow-up. Cost data from the PIAAF-Pharmacy study were used to calculate the cost per AF screen by dividing the total cost of the screening sessions conducted in PIAAF-Pharmacy study by the number of individuals screened within the study. The total cost of the screening sessions was estimated by summing three cost categories: 1) training of personnel conducting the screening sessions; 2) in-pharmacy screening sessions including transmission of results to family physicians; and 3) costs of ECGs used within screening sessions. Individuals in the "no screening" group were assumed to remain undiagnosed for the remainder of their lives.

***Long-term model assumptions***

The following presents the key assumptions for the long-term model in terms of stroke and bleeding risk, mortality, cost of events, and utilities. A summary of the long-term

model variables is also provided in Appendix 1 along with other model inputs used in the short- and long-term models (e.g. cost and utility data).

*Stroke and bleeding risk*

The average $CHA_2DS_2$-VASc score for individuals diagnosed with AF in the PIAAF-Pharmacy study was used in the model (i.e., 3.3). The annual risk of stroke in the absence of OAC therapy and the risk of ICH and non-ICH major bleeding for AF individuals were based on findings from a Swedish cohort study involving 182,000 individuals diagnosed with AF[13]. This study was also used to assign the model cohort the average HAS-BLED score (2.18) since the HAS-BLED scores were not captured in the PIAAF-Pharmacy study.

For individuals with AF that received an OAC therapy, the relative risk of ischemic stroke and major bleeding compared to those not receiving an OAC therapy was applied separately for individuals that were treated with warfarin and for those on direct oral anticoagulants (DOACs). For individuals taking warfarin, the relative risk of ischemic stroke and major bleeding was based on a meta-analysis by Lip *et al.*[14]. For the individuals receiving DOACs, data from Ruff *et al.* [4]'s meta-analysis of ischemic stroke and major bleeding relative to warfarin were used. The relative risk of events for DOACs compared to no treatment was estimated indirectly by multiplying the relative risk of events for DOACs versus warfarin by the relative risk of events for warfarin compared to no treatment.

*Mortality*

For individuals without AF or for individuals with AF who do not develop an event (e.g. stroke), age- and gender-specific mortality rates were applied based on Canadian life tables[15, 16]. The one-year mortality rate after ischemic stroke (37.3%) was based on findings from McGrath *et al.*[17]. The one-year mortality rate post ICH (35.2%) was based on in-hospital mortality reported in Alonso *et al.*[18] extrapolated to 1 year post-ICH mortality by applying the ratio of 30 day mortality to 1 year as observed for ischemic stroke in McGrath *et al.*[17]. Mortality after 1 year post stroke (ischemic or hemorrhagic) was assumed to be 2.3 times higher than for the general population based on data from Hardie *et al.*[19]. Non-ICH major bleeding was associated with a 7.4% mortality rate[20].

*Costs*

Based on Canadian registry data, it was assumed that 52% of individuals receiving OACs would receive warfarin while 48% would receive a DOAC [21]. The cost of warfarin was based on a regimen of 5 mg per day. Individuals receiving warfarin were also assigned monitoring costs based on estimates used in a Canadian economic evaluation of AF treatments by Coyle *et al.*[22]. Unit costs of OAC therapy were based on 2016 reimbursement prices from the Ontario Drug Benefit formulary[23]. Individuals suffering an ischemic stroke or an ICH were assigned separate costs for the first year and subsequent years post event based on Canadian data [24-27]. All costs were expressed in $CAN 2016. When necessary, the health care component of the Canadian consumer price index was used to adjust to $CAN 2016[28].

*Utilities*

Individuals in the model with or without AF but with no events were assigned age- and gender-specific general population EQ-5D utility values[29]. Individuals suffering an ischemic stroke or ICH (hemorrhagic stroke and non-hemorrhagic stroke) were assigned a utility weight of 0.60 to reflect the decreased long-term quality of life after these events. This utility weight was estimated by combining the average utility for stroke according to modified Rankin score (mRS 0-2, mRS 3-5) reported by Rivero-Arias[30] with the proportion of individuals in these mRS categories, as derived from data from the Active A trial[31]. The stroke utility weight was multiplied by the age- and gender-specific population utility value for the cohort of patients that suffer a stroke.

***Analysis of Uncertainty***

The uncertainty around the base case cost-effectiveness results was first evaluated using probabilistic sensitivity analyses (PSA). In the PSA, the model results were simulated 1000 times with values from model input variables being drawn from distributions specific to each model parameter (Appendix 1) using Monte Carlo techniques.[32] Parameter uncertainty around the base case results were expressed using a cost-effectiveness acceptability curve (CEAC) which shows the probability that AF screening is cost-effective across different willingness-to-pay thresholds.

In addition to the PSA, deterministic sensitivity analyses were conducted in which cost-effectiveness results were evaluated while changing the value of a single model parameter at a time (cost per AF screen, proportion of AF receiving OAC, PPV, proportion of undiagnosed AF becoming diagnosed annually , time horizon, stroke costs [22], proportion of OAC that are DOACs,).

## RESULTS

With a cost per patient screened of $65 (Appendix 2), the model estimated that, compared to no screening, the PIAAF-Pharmacy screening intervention would result in higher expected costs ($2), more life years (0.0039) and more QALYs (0.0045) over a lifelong time horizon, yielding an incremental cost per QALY gained of $375 as shown in Table 1. The increased per-patient costs associated with the screening strategy ($65) and OAC management ($49) are partially offset by the decreased costs of ischemic stroke (-$144) as shown in Table 2.

The results of the PSA, incorporating the uncertainty in the parameter values, indicate that the probability that AF screening is cost-effective is 93% and 95% if the willingness to pay for a QALY gained is $50,000 or $100,000, respectively (Figure 2). The results of various deterministic sensitivity analyses, given in Table 3, indicate that the AF screening strategy is dominant or less than $50,000 per QALY in all sensitivity analyses except where: 1) the proportion of individuals with confirmed AF that receive an OAC is 10% or less (compared to 71% in the base case analysis); 2) the PPV of the single lead ECG is 0.10 or lower (compared to 0.654 in our base case analysis); or 3) the proportion of individuals with AF in the “no screening” arm that get diagnosed symptomatically is 20% or higher annually (compared to 0% in the base case analyses).

## INTERPRETATION

The results of the economic evaluation of the PIAAF-Pharmacy study indicates that screening individuals 65 years of age or older for AF in Canadian pharmacies is highly cost-effective compared to no screening, yielding an incremental cost/QALY gained of

$375. The upfront costs associated with the screening were mostly offset by reductions in ischemic stroke-related costs due to the initiation of OAC treatment after identification of AF. Except in unlikely situations (e.g. 10% of newly diagnosed AF individuals would be prescribed an OAC when diagnosed with AF), the screening strategy was the dominant or a cost-effective strategy in all sensitivity analyses, thus improving our confidence in the results.

These findings are fairly consistent with those of a cost-effectiveness analysis of an Australian pharmacy AF screening program of individuals 65 years or older[7] which yielded an incremental cost per QALY gained of AUD$5,988 (CAN$5,928 [33]). This study assumed an underlying prevalence of undiagnosed AF of 1.4%, and a sensitivity and specificity of the AF screening test of 98.5% and 91.5%. The cost per screen was $AUD20 (CAN$20). In Sweden, the long-term cost-effectiveness of a non-pharmacy mass AF screening program [6] was estimated to be €4,313/QALY gained (CAN$6,341/QALY [33]). In this study the cost per screen was assumed to be €106 (CAN$ 156) and the percentage of screened individuals diagnosed with AF was assumed to be 3%. It was further assumed that 93% of patients identified with AF would receive an OAC. In comparison to these two studies, our model assumed in the base case analyses that 2.4% of seniors will test positive for AF for the first time at a cost of $65 per screened individual. Furthermore, we used a PPV of 65.4% to calculate the proportion of screened AF patients that are true positive (1.6%) and assumed that 71% of true positive patients will receive OAC treatment.

There are a number of limitations to this economic evaluation. First, cost-effectiveness results were driven by predictions of ischemic stroke and other AF treatment events

which were not observed but predicted based on short-term screening results. Another limitation was related to the assumption around the percentage of individuals diagnosed with AF through screening that would end up being prescribed an OAC (71%). This percentage was based on data from the PIAAF-Pharmacy study in which 5 out of the 7 individuals who had seen their physician by six weeks were prescribed an OAC. To deal with the uncertainty associated with some assumptions and associated parameter values, sensitivity analyses were conducted and indicated that the results were robust except for extreme and unlikely situations (Table 3). Third, our economic evaluation only focused on AF and we did not integrate additional benefits associated with the PIAAF-Pharmacy study such as the detection of other modifiable stroke risk factors during the screening (e.g. high blood pressure or risk of diabetes) that have already been shown to be clinically and economically advantageous.[9, 10] Inclusion of those additional factors would result in additional benefits with the program and would most likely result in overall cost-savings. As per the study design, the intervention was conducted by study coordinators and volunteers during scheduled screening sessions. As a result, some of their time in the pharmacy was spent waiting for eligible participants. It is reasonable to consider that an AF screening program could be better integrated into pharmacy workflows in collaboration with other pharmacy programs such as vaccinations thus cutting down waiting time and therefore the cost per screened patient.

The results of this study have several policy implications. The PIAAF-Pharmacy study indicated that screening AF and other modifiable risk factors in the pharmacy setting is feasible and is the dominant or cost-effective strategy compared to no screening, even at a cost of $65 per screen. Given this, efforts should be made by provincial

governments and pharmacies to implement such programs in Canada. Adding AF screening in pharmacies should be considered along with other evidence-informed screening for metabolic disorders to identify high risk patients.[10, 34]

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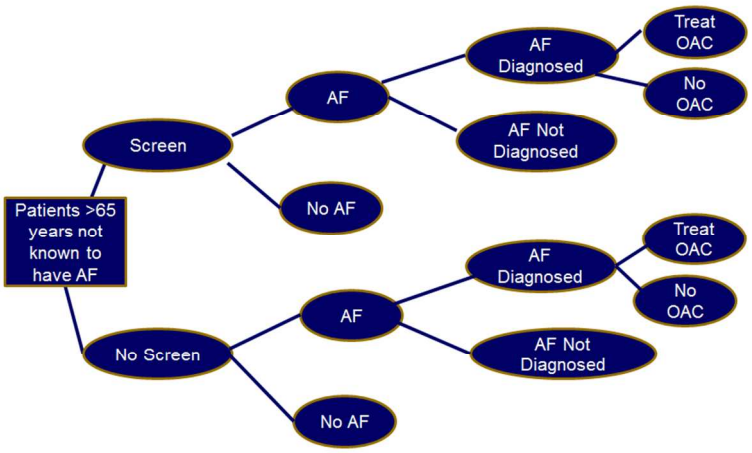
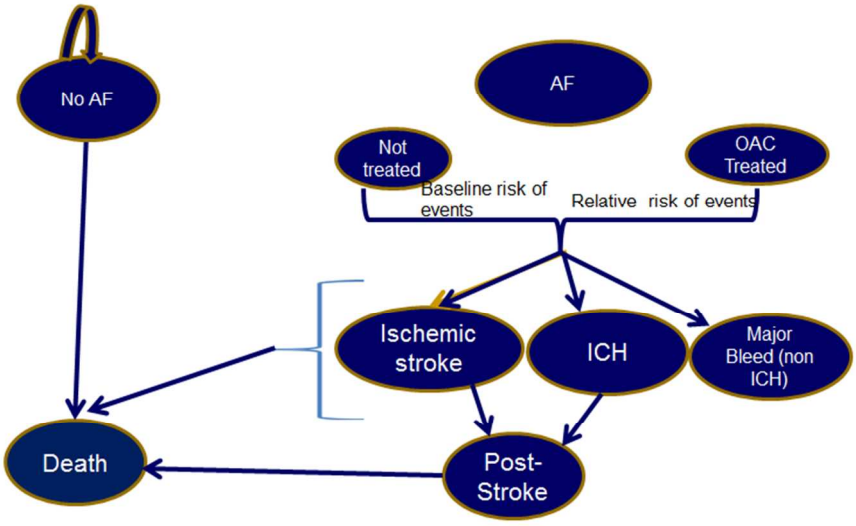
Figure 1: Atrial Fibrillation Screening Model Structure

1a: Graphical representation of the short-term AF screening model




1b: Graphical representation of the long-term AF screening model

Individuals start the long term model in one of three health states: 1) No AF; 2) AF not treated with an OAC; or 3) AF treated with an OAC; or 3) AF treated with an OAC




Abbreviations: AF-atrial fibrillation, ICH-intracranial hemorrhage, OAC-oral anticoagulants

Figure 2: Cost-effectiveness acceptability curve

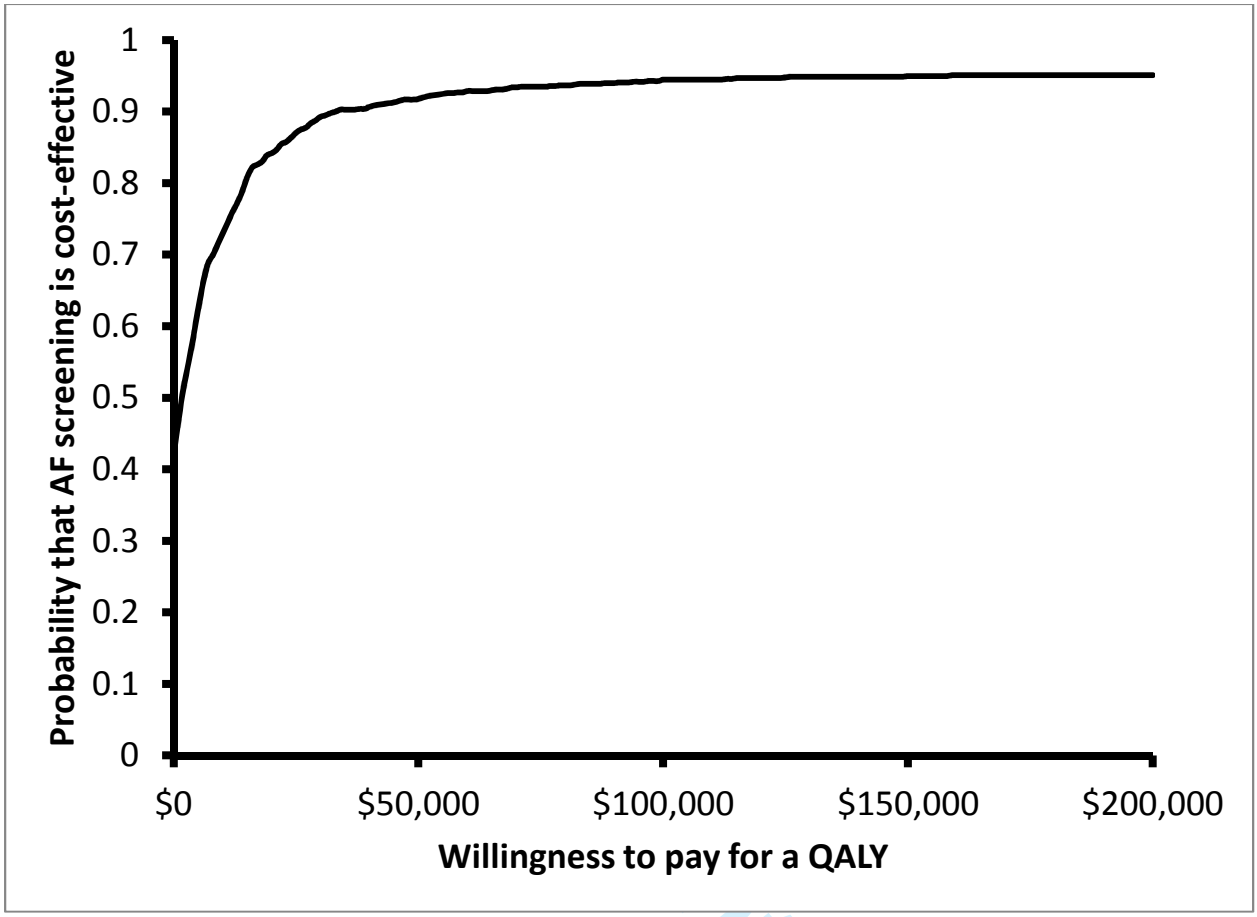


Table 1: Base-case cost-effectiveness results

| Intervention | Costs | LYs | QALYs | Incremental $/LY gained | Incremental $/QALY gained |
|---|---|---|---|---|---|
| PIAAF-Pharmacy Screening | $356 | 7.496 | 5.714 | | |
| No Screen | $355 | 7.493 | 5.710 | | |
| Incremental | $2 | 0.0039 | 0.0045 | $428 | $375 |

Abbreviations: PIAAF-Pharmacy = Program for the Identification of 'Actionable' Atrial Fibrillation: in the Pharmacy Setting, Lys = Life Years, QALYs = Quality Adjusted Life Years

Table 2: Breakdown of expected costs by category

| | Intervention | OAC | Ischemic stroke | ICH | Major bleeds | Total |
|---|---|---|---|---|---|---|
| PIAAF-Pharmacy Screening | $65 | $49 | $168 | $53 | $21 | $356 |
| No Screen | $0 | $0 | $312 | $33 | $10 | $355 |
| Incremental | $65 | $49 | -$144 | $20 | $11 | $2 |

Abbreviations: PIAAF-Pharmacy = Program for the Identification of 'Actionable' Atrial Fibrillation: in the Pharmacy Setting, OAC = oral anticoagulants, ICH = intracranial hemorrhage

Table 3: One way sensitivity analyses: PIAAF-Pharmacy Screening versus no screening (base case: incremental cost per QALY gained; $1,175/QALY gained)

| | Incremental costs | Incremental QALYS | Incremental cost/ QALY gained |
|---|---|---|---|
| **Cost of screen (**base case=$65) | | | |
| $100 | $37 | 0.0045 | $8,229 |
| $90 | $27 | 0.0045 | $5,984 |
| $80 | $17 | 0.0045 | $3,740 |
| $70 | $7 | 0.0045 | $1,495 |
| $60 | -$3 | 0.0045 | dominates |
| $50 | -$13 | 0.0045 | dominates |
| $40 | -$23 | 0.0045 | dominates |
| $30 | -$33 | 0.0045 | dominates |
| **Proportion of newly diagnosed AF individuals that receive an OAC (**base case=0.71) | | | |
| 1 | -$24 | 0.0062 | dominates |
| 0.9 | -$15 | 0.0056 | dominates |
| 0.8 | -$6 | 0.0050 | dominates |
| 0.7 | $3 | 0.0044 | $673 |
| 0.6 | $12 | 0.0037 | $3,154 |
| 0.5 | $21 | 0.0031 | $6,629 |
| 0.4 | $30 | 0.0025 | $11,841 |
| 0.3 | $38 | 0.0019 | $20,527 |
| 0.2 | $47 | 0.0012 | $37,900 |
| 0.1 | $56 | 0.0006 | $90,018 |
| **Positive predictive value of single lead ECG (**base case=0.62) | | | |
| 1 | -$32 | 0.0068 | dominates |
| 0.9 | -$22 | 0.0061 | dominates |
| 0.8 | -$12 | 0.0054 | dominates |
| 0.7 | -$3 | 0.0048 | dominates |
| 0.6 | $7 | 0.0041 | $1,688 |
| 0.5 | $17 | 0.0034 | $4,870 |
| 0.4 | $26 | 0.0027 | $9,641 |
| 0.3 | $36 | 0.0020 | $17,595 |
| 0.2 | $46 | 0.0014 | $33,501 |
| 0.1 | $55 | 0.0007 | $81,221 |
| **Proportion of undiagnosed AF individuals that become diagnosed** | | | |

| | | | |
|---|---|---|---|
| **each year (**base case=0.0) | | | |
| 0 | $2 | 0.0045 | $375 |
| 0.05 | $32 | 0.0024 | $12,983 |
| 0.1 | $42 | 0.0017 | $25,674 |
| 0.2 | $51 | 0.0010 | $50,939 |
| 0.3 | $54 | 0.0007 | $75,887 |
| 0.4 | $56 | 0.0006 | $100,476 |
| 0.5 | $58 | 0.0005 | $124,700 |
| **Time horizon, years (**base case=lifetime) | | | |
| 5 | $32 | 0.0010 | $31,430 |
| 10 | $11 | 0.0026 | $4,314 |
| 15 | $5 | 0.0037 | $1,455 |
| 20 | $5 | 0.0041 | $1,185 |
| 25 | $5 | 0.0042 | $1,175 |
| **Alternative stroke costs** | $41 | 0.0045 | $9,231 |
| **Warfarin represents 100% OACs*** | -$14 | 0.0036 | dominates |
| **DOACs represent 100% of OACs*** | $19 | 0.0054 | $3,478 |

*base case, warfarin and DOAC's represents 52% and 48% of OAC use respectively

Abbreviations: QALYs = Quality Adjusted Life Years, OAC = oral anticoagulants, ECG = electrocardiogram, AF = Atrial Fibrillation

Appendix 1: Model parameters, distributions used in probabilistic analyses and data sources

| Variable | Model value | Distribution | Reference |
|---|---|---|---|
| **SHORT-TERM MODEL VARIABLES** | | | |
| Proportion of screened individuals testing positive for AF on single lead ECG | 0.024 | beta (α=27 , β=1118) | 1 |
| Positive predictive value of single lead ECG | 0.654 | beta (α=50 , β=27) | 12 |
| Proportion of confirmed AF that receive an OAC | 0.71 | beta (α=5 , β=2) | 1 |
| **LONG-TERM MODEL VARIABLES** | | | |
| **Annual risk of event in absence of OAC** | | | |
| Ischemic stroke ($CHA_2DS_2$-VASc = 3.2) | 0.048 | beta (α=85 , β=1683) | 2 |
| ICH without OAC (HAS-BLED = 2.18) | 0.006 | beta (α=201 , β=33285) | 2 |
| Major bleed (non-ICH) (HAS-BLED = 2.18) | 0.023 | beta (α=770 , β=32715) | 2 |
| **Relative risk of events: warfarin vs. no OAC** | | | |
| RR ischemic stroke | 0.33 | lognormal (μ=-1.1 σ=0.24) | 3 |
| RR major bleeding | 2.2 | lognormal (μ=0.80, σ= 0.47) | 3 |
| **Relative risk of events: DOAC vs. warfarin** | | | |
| RR ischemic stroke | 0.92 | lognormal (μ=-0.08, σ=0.05) | 4 |
| RR hemorrhagic stroke | 0.49 | lognormal (μ=0.71, σ=0.13 ) | 4 |
| RR ICH (non-hemorrhagic stroke) | 0.46 | lognormal (μ=-0.79, σ= 0.16) | 4 |
| RR major bleed (non-ICH) | 0.97 | lognormal (μ=-0.03, σ= 0.04) | 4 |
| Proportion of OACs prescribed that are DOACs | 0.48 | beta (α=366 , β=416) | 5 |
| **Relative risk of events: DOAC vs. no OAC** | | | |
| RR ischemic stroke | 0.3 | Determined by other variables | Indirect: 4, 3 |
| RR hemorrhagic stroke | 1.09 | Determined by other variables | Indirect: 4, 3 |
| RR ICH (non-hemorrhagic stroke) | 1.01 | Determined by other variables | Indirect: 4, 3 |
| RR major bleed (non-ICH) | 2.15 | Determined by other variables | Indirect: 4, 3 |
| **Annual OAC costs** | | | |

| | | | |
|---|---|---|---|
| DOAC (average of dabigatran, rivaroxaban, apixaban) | $1,271.65 | Fixed | 6 |
| Warfarin | $24.63 | Fixed | 6 |
| INR testing with warfarin | $247.76 | gamma (α=25,β=9.91) | 7 |
| **Annual event costs** | | | |
| Ischemic stroke 1st year | $57,024 | gamma (α=25,β= 2281) | 8 |
| Ischemic stroke 2nd+ years | $7,085 | gamma (α=25,β=283) | 9 |
| ICH 1st year | $67,386 | gamma (α=25,β= 2695) | 10 |
| ICH 2nd+ years | $6,087 | gamma (α= 25,β= 244) | 9 |
| Major bleed (non-ICH) | $4,870 | gamma (α=25,β=195) | 11 |
| **Utility variables** | | | |
| General population males aged 75+ | 0.75 | beta (α=193 , β=64) | 12 |
| General population females aged 75+ | 0.71 | beta (α=412 , β= 168) | 12 |
| Proportion stroke with mRS 3-5 | 0.45 | beta (α=208, β= 259) | 13 |
| Utility weight mRS 0-2 | 0.81 | beta (α=1128, β=256) | 14 |
| Utility weight mRS 3-5 | 0.34 | beta (α=45, β= 86 ) | 14 |
| Utility weight stroke | 0.6 | Determined by other variables | Indirect: 13, 14 |
| **Mortality** | | | |
| Annual general population | varies by age and gender | Fixed | 15, 16 |
| 1 year following ischemic stroke | 0.37 | beta (α=1027 , β=1726) | 17 |
| 1 year following ICH | 0.35 | beta (α=806 , β=1484) | 18 |
| RR of death vs. general population 2+ year's post stroke | 2.3 | lognormal (μ=-0.83,σ= 0.16) | 19 |
| Major bleed (non-ICH) | 0.074 | beta (α=4870 , β=60940) | 20 |

Abbreviations: AF = Atrial Fibrillation, ECG = electrocardiogram, OAC = oral anticoagulants, ICH = intracranial hemorrhage, RR = relative risk, DOAC = direct oral anticoagulants, INR = international normalised ratio, mRS = modified Rankin Scale

Appendix 2: Breakdown of costs associated with the PIAAF-Pharmacy Screening Program for AF, number of individuals screened, and average cost per screen

| | |
|---|---|
| **Costs associated with developing the training module and training the session coordinators and volunteers** | |
| Development of a training module | $1,564.40 |
| Management of session coordinators and volunteers, wage | $1,701.29 |
| **Costs associated with AF screening in participating pharmacies** | |
| Session coordinators, wage | $42,504.46 |
| Site-specific hosting fees | $13,200.00 |
| **Costs associated with electrocardiograms used during the screening sessions** | |
| Electrocardiogram devices | $7,560.00 |
| Electrodes | $341.10 |
| Upload and reading of electrocardiograms | $4,548.00 |
| Electrocardiogram data storage | $2,500.00 |
| **Total screening costs associated with the PIAAF-Pharmacy Study** | **$73,919.25** |
| **Total number of individuals screened** | 1,137 |
| **Average cost per screen** | **$65.01** |