



**HKU developed the atrial
fibrillation (AF) management app
and
Launch of private doctors AF
screening programme**

**Press Conference
9th April 2015**



Speakers

Prof Tse Hung-fat

Chair Professor of Cardiovascular Medicine
William MW Mong Professor in Cardiology
Department of Medicine, HKU

Dr David Siu Chung-wah

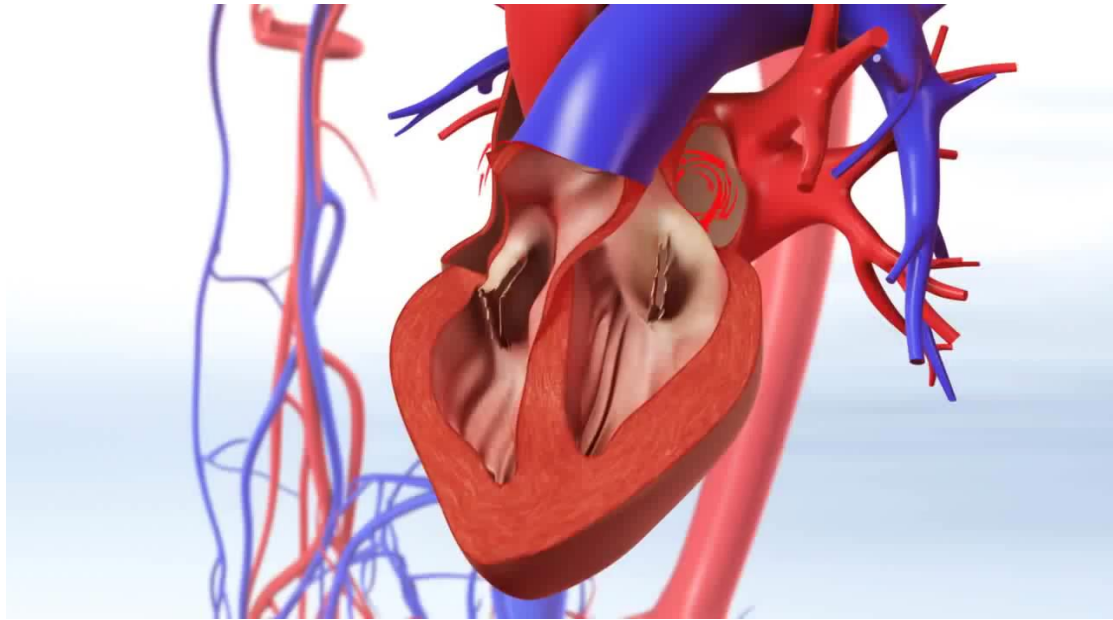
Clinical Associate Professor
Department of Medicine, HKU

Dr Chan Pak-hei

Clinical Assistant Professor
Department of Medicine, HKU



What is Atrial fibrillation (AF) ?



- Atrial fibrillation (AF) is the commonest sustained arrhythmia
- Incidence in Chinese population ~1%
- Risk factors for AF: Hypertension, age, diabetes
- Stroke risk is 5 times higher in AF patients
- Up to 25% of AF patients initially presented as ischemic stroke

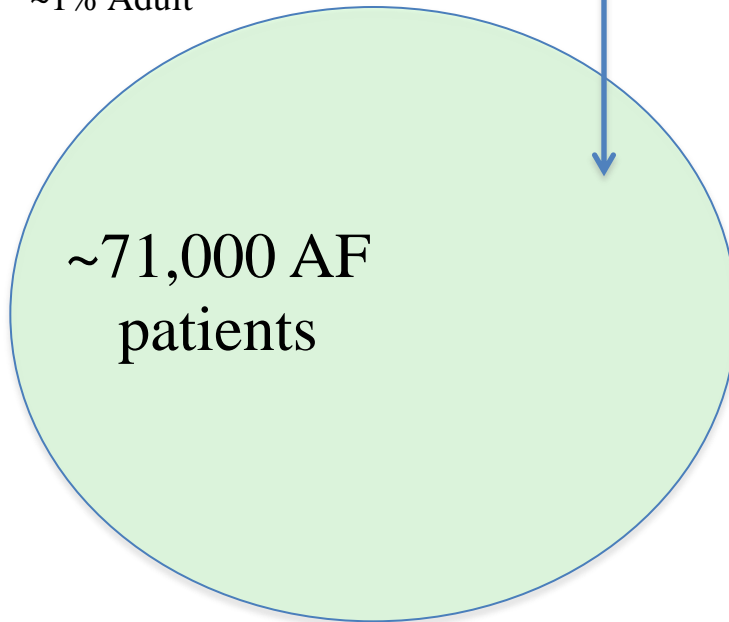


Current situation in HK

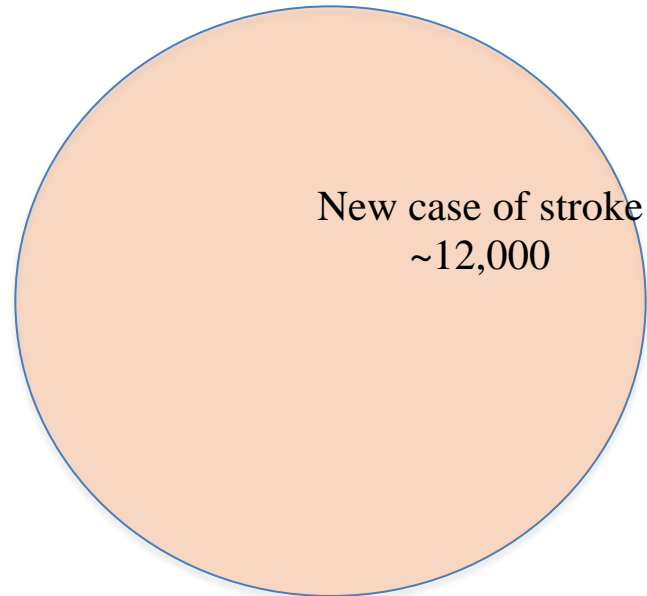
HK Population ~7,100,000

~25% i.e. 3000 stroke patients
related to AF each year

~1% Adult



Annual incidence
0.17%





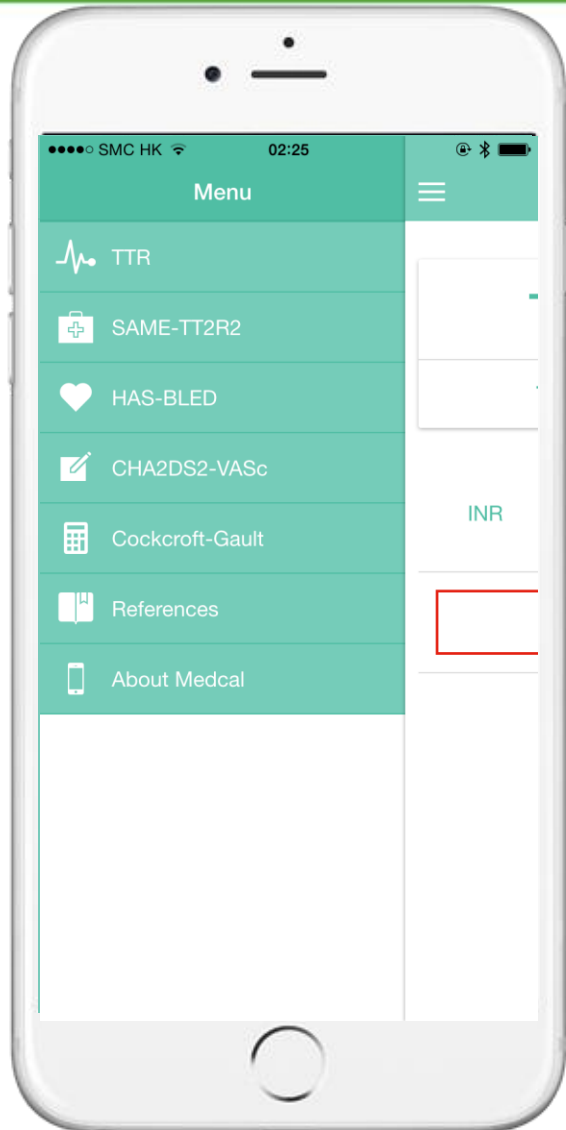
AF-related stroke is preventable!



- Appropriate use of anticoagulation can decrease stroke
- Warfarin, if able to keep INR at 2-3, can reduce stroke by 60-70%
- NOAC can reduce stroke by 70%



Atrial fibrillation (AF) management app



Free App for download

HKU AF CAL

- Jointly developed by Department of Medicine, Li Ka Shing Faculty of Medicine, HKU and Heartisans Ltd
- Available online since March 2015
- On both **iOS** and **Android** platform
- AF-related risk scores calculation

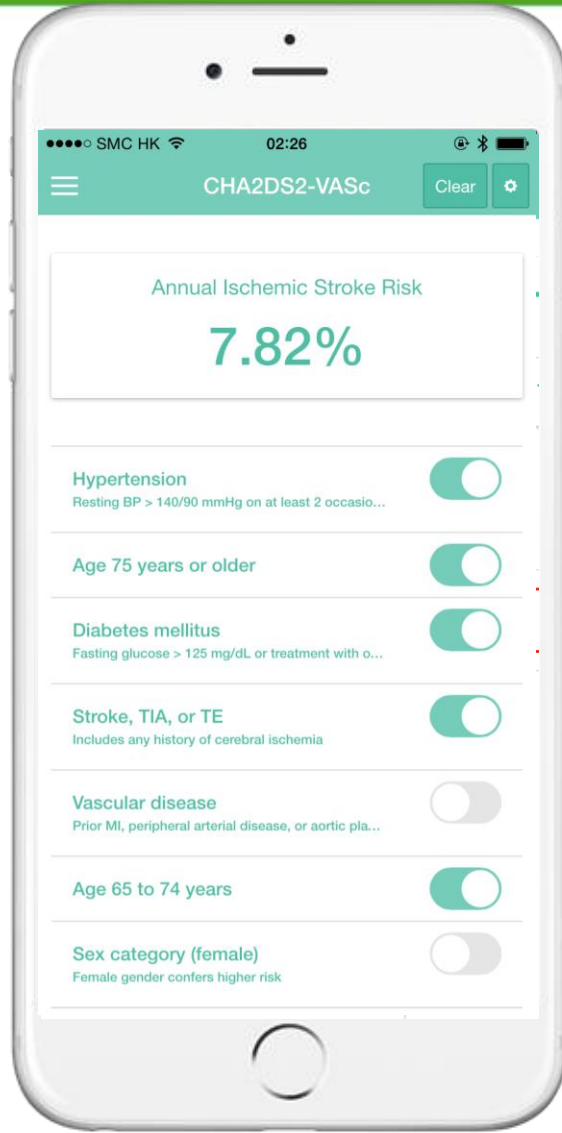


Purposes

- Assist medical doctors in assessing the ischemic stroke risk in AF patients and bleeding risk if commenced on anticoagulation, thus facilitating them in choosing the most optimal therapy
- Facilitate doctor-patient communication
- Promote the understanding of AF among general public and patients



Function (1)



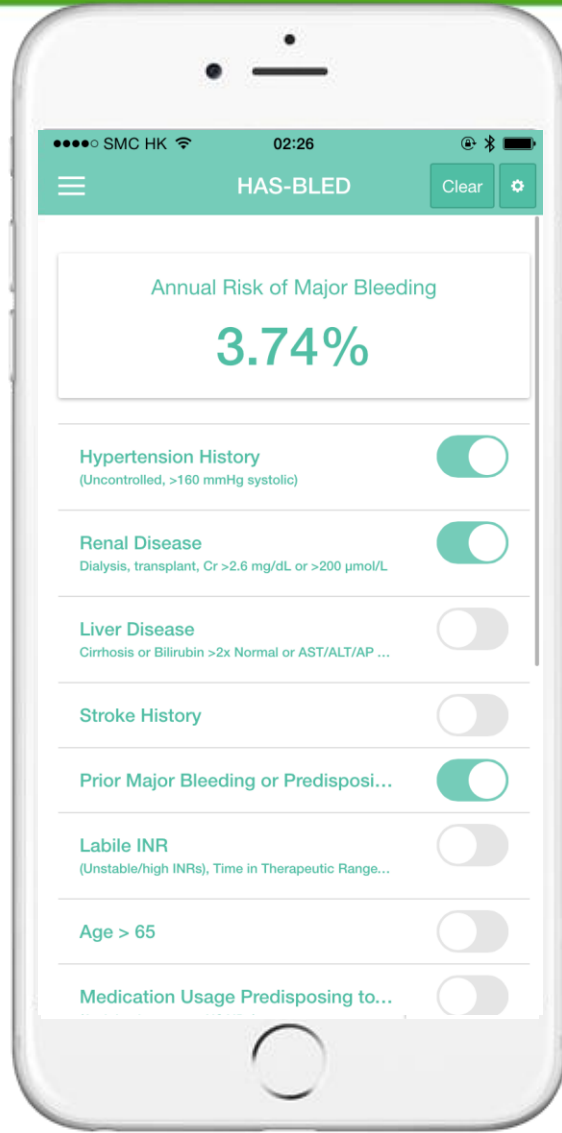
Ischemic stroke risk in AF patients:

(CHA_2DS_2-VASc score)

- To select individual risk factors – e.g. age, hypertension, heart failure → stroke risk automatically generated
- Allow patients to acknowledge their own stroke risk
- Assist doctors to select most appropriate anticoagulation strategies for their patients



Function (2)



Bleeding risk assessment:

(HASBLED score)

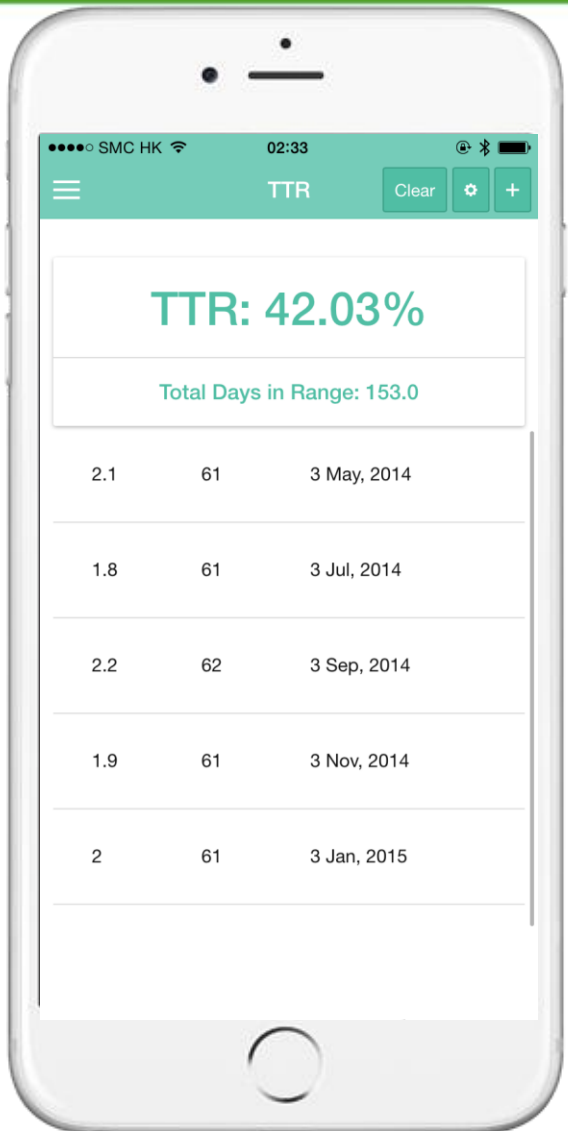
- To select individual risk factors e.g. age, hypertension, previous bleeding history → bleeding risk automatically generated
- Balancing the potential risk and benefit of anticoagulation, appropriate choice of anticoagulation for specific patients is made



Function (3)

TTR (Time in therapeutic window) calculator for warfarin

- Assessing the efficacy of anticoagulation for warfarin users
- At least 65% of time with INR (International Normalized Ratio) between 2 to 3 → good quality
- Practically TTR is very difficult to calculate, but with this app, the calculation becomes very simple



	3.1.2014	3.3.2014	3.5.2014	3.7.2014	3.9.2014	3.11.2014	3.1.2015
INR	1.9	2.0	2.1	1.8	2.2	2.3	1.9



Launch of private doctors AF screening programme

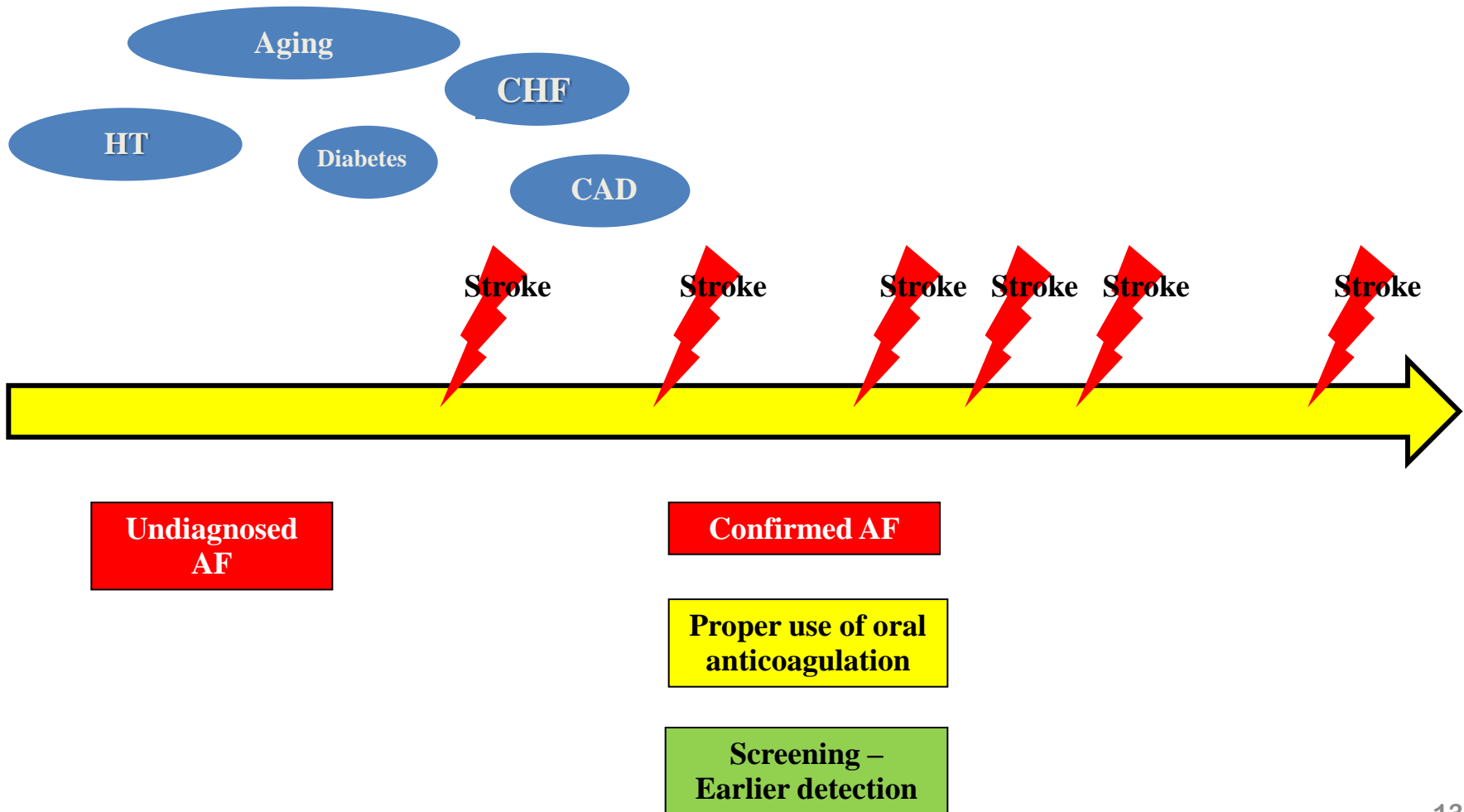


Background

- Majority of AF patients are asymptomatic
- Not uncommonly, they first present as ischemic stroke
- Approximately 15-25% of ischemic stroke patients have underlying AF
- Delay in diagnosis will miss the opportunity to implement appropriate anticoagulation to prevent ischemic stroke



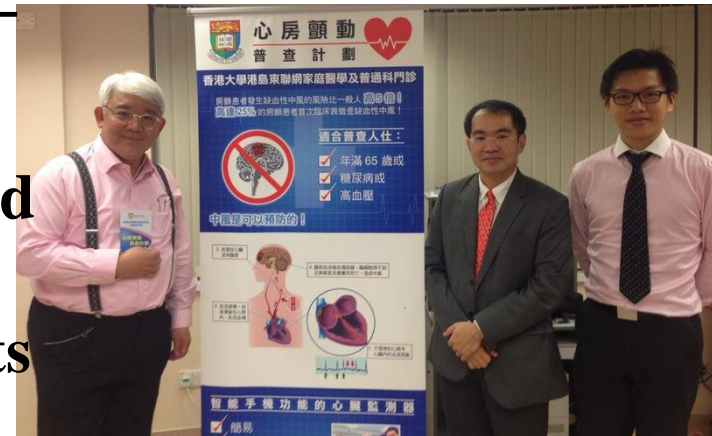
Background





Past experience

- Department of Medicine, HKU collaborated with Department of Family Medicine and Primary Healthcare HKEC Hospital Authority
- AF Screening in 5 GOPCs
- Duration: 2 years (Sep 2014 – Aug 2016)
- Target: ~60,000 patients (HT, DM, age \geq 65)
- Nearly 15,000 patients has been screened for AF. Confirmed AF patients assessed within 2 weeks by specialist cardiologists with echocardiography performed





Past experience



香港大學

心房顫動 普查計劃

香港大學港島東聯網家庭醫學及普通科門診

房顫患者發生缺血性中風的風險比一般人高**5倍**！
高達**25%**的房顫患者首次臨床表徵是缺血性中風

中風是可以預防的！

適合普查人仕：

- 年滿65歲 或
- 糖尿病 或
- 高血壓

1. 不規律的心跳令心臟內的血液淤積

2. 血液凝塊、血塊 滯留於心臟內，形成血塊

3. 血液在心臟內淤積 或凝結

4. 腦部血液供應 受阻，腦部 細胞得不到足 夠的血液而 死亡，造成 中風

智能手機功能的心臟監測器

- 簡易
- 能記錄下來作分析
- 節省時間 (30秒)



Purposes of private doctor AF screening programme

- Extension of the existing AF screening programme in HKEC GOPCs to private doctors to benefit more patients
- Aim to diagnose AF earlier in order to implement appropriate anticoagulation to prevent ischemic stroke
- Ultimate aim is to reduce AF-related ischemic stroke, which can be lethal



Programme details

- Department of Medicine, HKU will collaborate with private doctors from all 18 districts in Hong Kong
- Certificate Courses will be held at intervals to promote the awareness and exchange knowledge with private doctors
- Aim to invite 1,000 private doctors to collaborate for AF screening programme
- Research basis - Aim to evaluate the burden of AF in Chinese population and to enhance the level of care in preventing AF-related ischemic stroke



Programme details

- Department of Medicine, HKU will provide equipment, technical support (ECG, Echocardiography) and professional advice for participating private doctors
- Duration: 2 years (June, 2015 to May 2017)
- Target: ~100,000 – 150,000 patients
 - Patients with chronic illness (e.g. Hypertension, diabetes, elderly ≥ 65)
 - Free of charge



Programme details



The University of Hong Kong

Certificate Course in

Stroke Prevention in Atrial Fibrillation & HKU Private Doctors AF Screening Program

1st Round
10 May 2015

In Hong Kong, it is estimated that around 70,000 individuals are suffering from atrial fibrillation (AF), which can lead to ~3,000 strokes each year. More importantly, two thirds of these strokes are in fact preventable. However, like many other countries worldwide, long-term anticoagulation therapy has been grossly underutilized in our population. In the non-vitamin K oral anticoagulants, the safety, efficacy, and complexity of anticoagulation therapy have greatly been enhanced, the stroke prevention management in AF has been revolutionized.

The Certificate Course aims to provide our private clinicians up-to-date information about the state-of-the-art management of AF in a local perspective.

The HKU Private Doctors AF Screening Program is an initiative to expand our current effort in early AF detection in the public setting to private healthcare system in order to combat stroke in Hong Kong.



Organizer :
Dr. Chung-Wah SIU
Department of Medicine
The University of Hong Kong

Venue :
Mrs Chen Yang Foo Oi Telemedicine Centre,
2/F William MW Mong Block,
21 Sasson Road, Pokfulam

ENQUIRIES:
Tel: 2255-5869
Email: cwdsiu@hku.hk

Certificate Course in Stroke Prevention in Atrial Fibrillation & HKU Private Doctors AF Screening Program

Date 10 May 2015 (Sunday)

Time 14:00 – 18:00

Venue Mrs Chen Yang Foo Oi Telemedicine Centre,
2/F William MW Mong Block, 21 Sasson Road, Pokfulam

Preliminary Program

14:00 - 14:10	Registration	
14:10 - 14:20	AF epidemiology: Hong Kong perspective.	Dr. David Siu
14:20 - 14:40	How to assess my AF patient's stroke risk?	Dr. Michael Chan
14:40 - 15:00	Stroke in AF: West meets East!	Dr. David Siu
15:00 - 15:10	What should I do after diagnosing AF?	Dr. Michael Chan
15:10 - 15:20	What do the Guideline say?	Dr. David Siu
BREAK		
15:30 - 15:40	Is aspirin useful?	Dr. David Siu
15:40 - 16:00	Practical tips to use NOAC	Prof. Hung Fat Tse
16:00 - 16:20	Use of NOAC, any real-world data on their clinical benefit?	Dr. Michael Chan
16:20 - 16:40	When should I refer my AF patients to cardiologists?	Prof. Hung Fat Tse
16:40 - 17:00	AF screening: Evidence and current practice	Dr. Michael Chan
17:00 - 17:40	HKU Private Doctors AF Screening Program	Dr. David Siu
17:40 - 18:00	Demonstration: (1) AliveCor and (2) HKU_AF_Cal Q & A	Mr. Edwin Cheung and Fred Kwan

Registration Form

- Certificate Course Only (HKD\$1,000)
 Certificate Course and HKU Private Doctor AF Screening Program..... (HKD\$3,000)*

Title (please circle): Prof / Dr / Mr / Mrs / Ms : Specialty: _____

Surname: _____ Given Name: _____ Name in Chinese: _____

Clinic Address: _____

Tel: _____ Fax: _____ Email: _____ @ _____

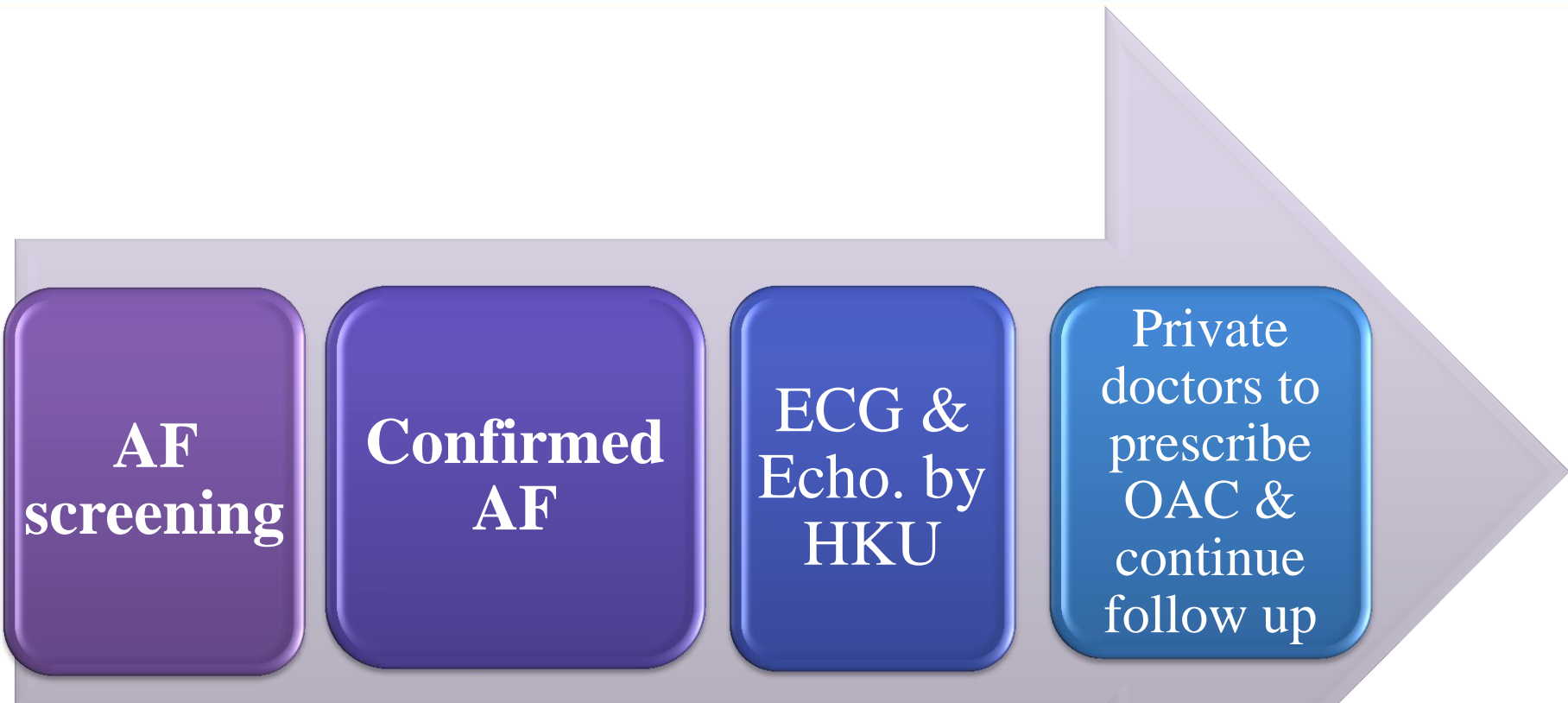
Date: ___/___/2015 Signature: _____ Bank: _____ Cheque No.: _____

Receipt: Yes / No

*HKU Private Doctor AF Screening Program is an 1-year screening program using AliveCor Heart Monitoring to detect AF at private health care setting. Participants will be provided AliveCor Heart Monitoring, patient education materials, U_AF_Cal app, ECG and echocardiography support.
This form should be completed and returned to the Secretary to the Department of Medicine, Li Ka Shing Faculty of Medicine, the University of Hong Kong (Room K1929A, Block K, Queen Mary Hospital, Pokfulam, Hong Kong) together with a HK dollar cheque for the course fee and/or HKU Private Doctor AF Screening Program, payable to "The University of Hong Kong".



AF screening workflow



AF Screening programme

From diagnosis to anticoagulation: ~2 weeks



Importance of AF screening

- By collaborating with private doctors, we aim to extend the AF screening programme to benefit more patients
- Starting from primary care setting, we aim to enhance the level of care for preventing AF-related ischemic stroke
- By minimizing the late complication of AF – ischemic stroke, we improve patients' outcome and lessen the burden of healthcare system



Thank you



Q & A