



## (2) Controlling Heart Rate or Heart Rhythm Using:

### I. Medications

Medications can be used to slow down the heart rate or to convert AF back to normal rhythm.

### II. Procedures

Selected patients may be suitable for procedures such as cardioversion, ablation or insertion of pacemaker.

*Contents in this brochure are meant for general informational purposes only and are not intended to be, and should not be treated as, substitutes for professional medical advice, diagnosis or treatment.*

## GETTING TO NHCS

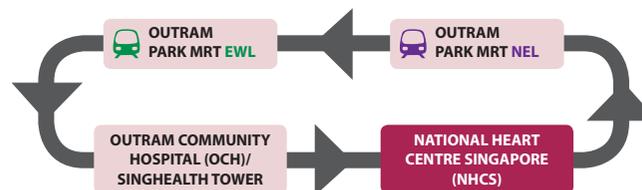
### NATIONAL HEART CENTRE SINGAPORE

5 Hospital Drive, Singapore 169609

Tel: (65) 6704 8000 Fax: (65) 6844 9030

Email: nhcs@nhcs.com.sg Website: www.nhcs.com.sg

### FREE SHUTTLE BUS ROUTE & OPERATING HOURS



Monday to Friday	8am to 7pm
Saturday & Eve of Public Holidays	8am to 2pm
Sunday & Public Holidays	No service
Frequency	Approximately every 20mins

### NEAREST PUBLIC TRANSPORT SERVICES

Bus Stop No. 10017 - Aft Hosp Dr (Eu Tong Sen St)	2, 2A, 12, 12e, 54, 61, 121, 122, 124, 143, 147, 166, 167, 174, 174e, 190, 196, 197, 961, 961M, CT8, CT18
---	---

Outram Park MRT	East West Line (EW16) North East Line (NE3)
The MRT station exit closest to NHCS is Exit F.	

## GETTING TO NHCS CARDIOLOGY @SKH

### NHCS CARDIOLOGY @SKH

Sengkang General Hospital

110 Sengkang East Way, Singapore 544886

### NEAREST PUBLIC TRANSPORT SERVICES

Bus Stop No. B67419 - Sengkang General Hosp (Sengkang East Rd)	43, 43M, 43e, 83, 109, 119, 374
--	---------------------------------

Cheng Lim LRT	Sengkang LRT Line (SW1)
The LRT station exit closest to SKH is Exit B.	

Sengkang MRT	North East Line (NE16)
The MRT station exit closest to SKH is Exit D.	

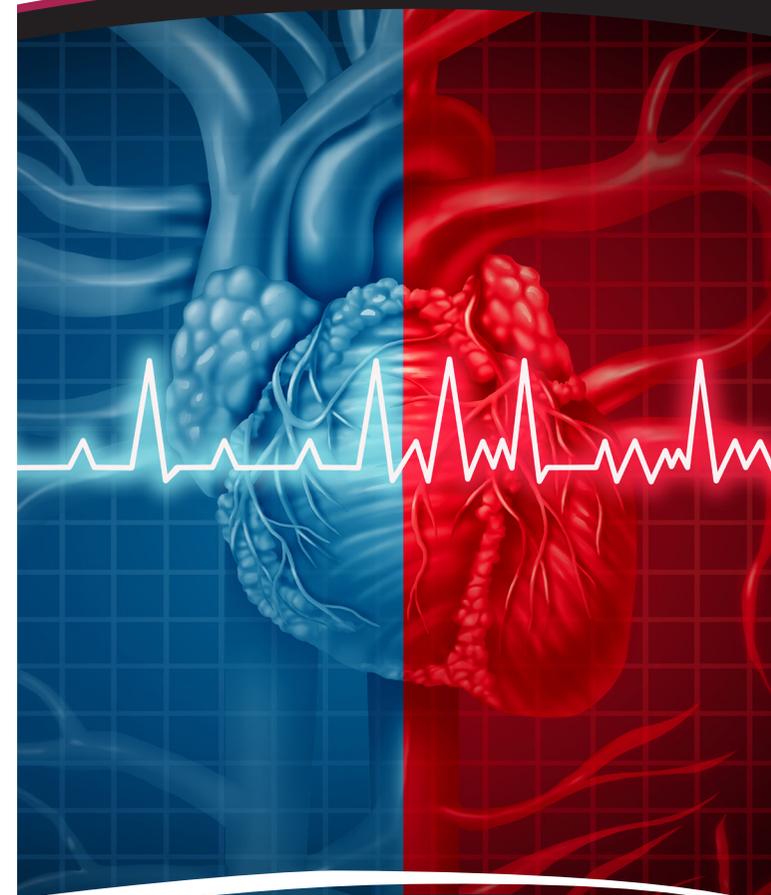
PATIENTS. AT THE HEART OF ALL WE DO.®

Reg No 199801148C

Printed Nov 2019

DEPARTMENT OF CARDIOLOGY

# Atrial Fibrillation (AF)



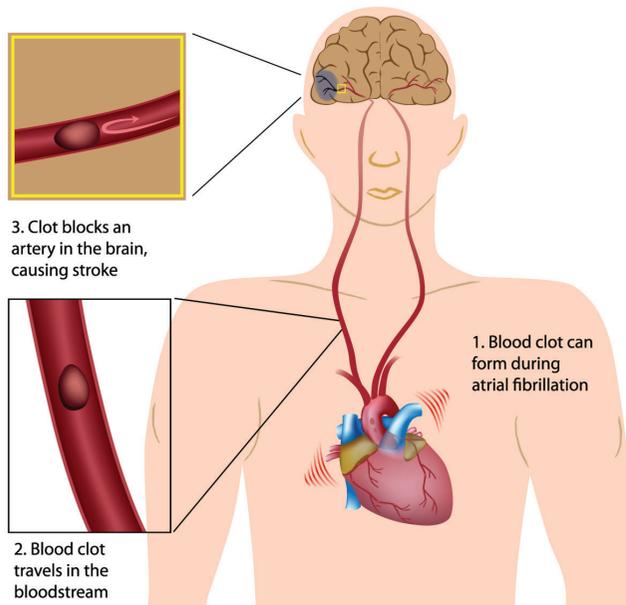
National Heart  
Centre Singapore  
SingHealth

## WHAT IS ATRIAL FIBRILLATION (AF)?

Atrial fibrillation (AF) is a type of heart rhythm problem caused by abnormal electrical activity within the upper chambers (atria) of the heart, which causes the lower chambers (ventricles) to beat in a fast and irregular manner.

AF is the most common heart rhythm problem. It may occur in patients of any age, but it is more commonly seen in the elderly. Patients with AF may sometimes not be aware that they have the condition as episodes of AF may come and go without obvious triggers. These episodes can become more frequent and prolonged, and may lead to heart failure or stroke.

### Atrial Fibrillation and Stroke



## SYMPTOMS OF AF

While some patients may not experience any symptoms, others may experience palpitations, dizziness, fainting, chest discomfort or breathlessness.

## CAUSES OF AF

People who have high blood pressure, coronary artery disease and conditions with abnormal heart structures are more likely to develop AF. It can also occur with an overactive thyroid gland, obesity, alcohol excess, sleep apnoea and infection. However, the exact cause of AF remains unknown in many patients.

## DIAGNOSTIC TESTS FOR AF

You may have already received some of these tests to confirm if you have AF. Otherwise, your doctor may discuss some of these tests with you to see if you have AF.

- Electrocardiogram (ECG)
- Holter (continuous heart rhythm monitoring between 24-48 hours)
- Blood tests and ultrasound of the heart may be required

## COMPLICATIONS OF AF

Irregular beating of the heart chambers can lead to small amounts of blood pooling within the heart, resulting in tiny blood clots. The blood clots can sometimes be released from the heart and lodge elsewhere in the body. If it lodges in the brain, it may result in a stroke. Uncontrolled fast beating of the heart over time can also result in weakening of the heart chambers.

## TREATMENT OPTIONS FOR AF

Treatment options are dependent on several factors such as age, symptoms, existing health problems, and risk of stroke. Treatments are aimed at (1) reducing your risk of stroke by using anti-clotting medications; and (2) controlling any symptoms you may experience from AF by controlling your heart rate or heart rhythm through medications or procedures. Please consult your doctor to find out which treatment is most suited for you.

### (1) Anti-clotting Medications

Medications that thin the blood may reduce the risk of clot formation. There are two types of anti-clotting medications available in Singapore - Warfarin and Direct-acting Oral Anti-Coagulants (DOACs), and both are effective at reducing risks of stroke. Do also note that these medications can increase the risk of both external and internal bleeding, such as in the brain or the gut. If you experience excessive bleeding, please inform your doctor immediately. Remember to also inform your dentist or doctor that you are taking these medications before any procedures or operations.

*Brief Table Comparison for Warfarin and DOACs:*

	Warfarin	DOACs
<b>Dosing</b>	Variable - requires regular blood-tests to check for correct Warfarin levels	Fixed - no need for regular blood tests (May not be suitable or require lower doses for those who have kidney impairment)
<b>Interactions with Medications</b>	Significant - need to inform your doctors before taking new medications	Minimal
<b>Dietary Restrictions</b>	Significant - need to restrict food that can affect Warfarin levels	Minimal
<b>Availability of Reversal Agent (in event of severe bleeding)</b>	Readily available	Less readily available
<b>Estimated Costs</b>	\$ Few cents a day + Costs for more frequent blood tests and clinic visits	\$\$\$ Few dollars a day