Atrial Fibrillation (AF) - Suspected and Ongoing Management in General Practice

1. Background information
2. Information resources for patients, carers & health care providers
3. Updates to this care map
4. Hauora Maori
5. Pasifika

- **RED FLAG!** or Duration < 48hrs
- Transfer to Emergency Department

- Electrocardiogram (ECG)
- Ambulatory Monitoring

- Investigations
- Consider Differential Diagnoses

- History
- Examination

- Clinical Evaluation

- Assess Stroke Risk
- Consider Bleeding Risk
- Antithrombotic Therapy

- Initiate Rate Control Medication
- Rate Controlled AF
- Rhythm Controlled AF

- Monitoring and management of AF
- Uncontrolled AF
- Review Treatment Options

- Check the Effectiveness of Treatment
- Treatment not Effective
- Specialist Physician Referral
- Treatment Effective
- Regular Review and Assessment

More information resources for patients, carers & health care providers.
Atrial Fibrillation (AF) - Suspected and Ongoing Management in General Practice

1 Background information

Quick info:

In scope:
- the assessment, diagnosis, and management of adults presenting with Atrial Fibrillation (AF), including:
  - the management of AF with cardiovascular compromise
  - synchronised electrical cardioversion and pharmacological cardioversion, rate control versus rhythm control
  - consideration of stroke risk stratification and antithrombotic therapy
  - referral criteria for cardiology

Out of scope:
- the assessment and management of AF in children
- specific management recommendations for paroxysmal, persistent, and permanent AF
- postoperative AF
- AF following an ischaemic event

Definition:
- AF is an atrial tachyarrhythmia characterised by predominantly uncoordinated atrial activation with consequent deterioration of atrial mechanical function [1]
- defined on an electrocardiogram by the absence of consistent P waves instead there are rapid oscillations or fibrillatory waves that [1]:
  - vary in size, shape, and timing
  - are generally associated with an irregular ventricular response when atrioventricular (AV) conduction is intact

Incidence and prevalence:
- AF is one of the most common heart rhythm disorders in adults, especially in older people. It occurs:
  - in about 1 in every 100 people in the general population
  - in nearly 10 in every 100 people over 80 years of age
  - more commonly at a younger age in Maori and Pacific peoples than in other New Zealanders
- incidence is substantially higher in those with cardiovascular disease (CVD) or valvular heart disease
- prevalence is estimated to at least double in the next 50 years as the population ages [2]

Aetiology:
- often caused by co-existing medical conditions - both cardiac and non-cardiac
- common cardiac causes include [1]:
  - ischaemic heart disease
  - rheumatic heart disease - specifically mitral valve disease
  - hypertension
  - sick sinus syndrome
  - pre-excitation syndromes, e.g. Wolff-Parkinson-White
- less common cardiac causes include [1]:
  - cardiomyopathy or heart muscle disease
  - pericardial disease, including effusion and constrictive pericarditis
  - atrial septal defect
  - atrial myxoma
- non-cardiac causes include [1]:
  - acute infections, especially pneumonia
  - electrolyte disturbances
  - lung carcinoma
  - other intrathoracic pathology, e.g. pleural effusion
  - pulmonary embolism
  - thyrotoxicosis
Prognosis:

- the adverse effects of AF are the result of both:
  - haemodynamic changes related to the rapid and/or irregular heart rhythm; and
  - thromboembolic complications related to a prothrombotic state associated with the arrhythmia
- AF is commonly associated with, and complicated by heart failure and stroke [2]:
  - confers a 5-fold increased risk of stroke
  - AF-associated ischaemic strokes are often fatal, and patients who survive are left more disabled and more likely to suffer a recurrence than patients with other causes of stroke
  - the risk of death from AF-related stroke is doubled and the cost of care is increased 1.5-fold
- in terms of the day-to-day effect on the patient's quality of life, AF can result in reduced exercise tolerance and impaired cognitive function
- AF progresses from short, rare episodes, to longer and more frequent attacks [2]:
  - over time (years), many patients will develop sustained forms of AF
  - only a small proportion of patients (2-3%) without AF-promoting conditions will remain in paroxysmal AF over several decades

2 Information resources for patients, carers & health care providers

Quick info:

Patient and carer information:

- Atrial Fibrillation (AF):
  - an overview of AF video
  - Atrial Fibrillation
  - Atrial Fibrillation (MCH)
- Warfarin and dabigatran:
  - patient leaflet on warfarin
  - oral anticoagulation for AF (warfarin vs. dabigatran)
  - Warfarin
  - Patient Information on Warfarin
  - Herbal Medicines and Warfarin
  - Warfarin and Diet
  - Dabigatran
  - “Red Books” are available from Glaxo NZ for recording INR and warfarin information
- New Zealand Heart Foundation:
  - Angina Action Plan
  - know your numbers
  - are you at risk of heart attack or stroke
  - taking control - my plan for heart health
  - taking control videos
  - a guide to recovery after a heart attack
  - staying well with heart failure
  - cardiac community online directory
  - healthy living advice
  - guidelines and patient resources
  - managing your angina
  - heart attack action plan
  - what happens during a heart attack
  - how your heart works
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Medicine > Cardiology > Atrial fibrillation

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Updates to this care map

Quick info:

Hauora Maori

Quick info:
As a practitioner you will work with Maori whanau/families. Each Maori whanau is diverse with their own set of values and beliefs, inherited, practised and passed down from generation to generation.

There are some important things that you should be mindful of when working with Maori individuals and their whanau from a holistic approach to working in a Whanau ora or family / whanau centred way.

Key enablers that you should be aware of when working with Maori whanau/families are:

- building relationships and gaining trust
- effective communication with whanau /families
- understanding and involving whanau/ families in the treatment planning and care management
- practical things to be mindful of when working with Maori whanau so that you do not breech Tikanga/Principles and practices that are important in Te Ao Maori/the Maori world

Common terms and definitions are noted here.

Pasifika

Quick info:
Our pasifika community:

- is a diverse and dynamic population
  - more than 22 nations represented in New Zealand
  - each with their own unique culture, language, history, and health status
  - share many similarities which we have shared with you here in order to help you work with pasifika patients more effectively

The main Pacific nations in New Zealand are

- Samoa, Cook Islands, Fiji, Tonga, Niue, Tokelau and Tuvalu

Acknowledging The FonoFale Model (pasifika mode of health) when working with pasifika peoples and families.

Acknowledging general pacific guidelines when working with pasifika peoples and families:

- cultural protocols and greetings
- building relationships with your pacific patients
- involving family support, involving religion, during assessments and in the hospital
- home visits
- pasifika phrasebook

Atrial Fibrillation (AF) - Clinical Presentation
Quick info:
Asymptomatic Atrial Fibrillation (AF) is relatively common. Many asymptomatic patients are picked up in general practice:

- may be discovered incidentally by cardiac auscultation
- 12-lead ECG recording
- or 24-hour Holter recording

In some cases, asymptomatic AF may only be detected when the patient presents with serious complications, such as a stroke, thromboembolism, or heart failure:

- whether AF was the cause or effect of the acute problem may then be uncertain

Symptomatic presentation:
- the patient may present with a wide variety of cardiac and non-cardiac conditions [1]
- common symptoms include:
  - breathlessness/dyspnoea with or without cough
  - palpitations
  - chest pain/discomfort
  - syncope/dizziness
  - fatigue
  - polyuria may occur due to the release of atrial natriuretic peptide during episodes of AF
  - falls, unsteadiness, blackouts
- in extreme cases, the patient may present with loss of consciousness

7 History

Quick info:
Discuss the following:

- the presence and nature of symptoms associated with Atrial Fibrillation (AF), including:
  - palpitations - establish:
    - onset and duration
    - frequency
    - pattern
    - speed
  - chest pain
  - breathlessness
  - pre syncope/syncope
  - fatigue
  - confusion
  - flushes
  - nausea
  - sweating
  - reduced exercise capacity
- precipitating factors, such as:
  - stimulants, e.g. tobacco, coffee, tea, alcohol
  - medications – including “Over The Counter”, complementary and alternative medications and supplements, illicit or prescription medicines used recreationally
  - exercise
  - stress or anxiety
  - infections
- other symptoms of cardiac disease, including:
  - orthopnoea

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Atrial Fibrillation (AF) - Suspected and Ongoing Management in General Practice

Medicine > Cardiology > Atrial fibrillation

- paroxysmal nocturnal dyspnoea
- nocturia
- peripheral oedema
- flu-like symptoms - consider myocarditis or pericarditis

- history of:
  - arrhythmia
  - cardiac disease or previous cardiac surgery
  - thyroid disease
  - peripheral vascular disease
  - stroke

- presence of risk factors for cardiac disease, such as:
  - smoking
  - diabetes
  - hypertension
  - hyperlipidaemia
  - previous rheumatic fever
  - alcohol abuse
  - previous chemotherapy

- family history, e.g. premature coronary disease, sudden cardiac death

Review/Consider concurrent medicines that can directly or indirectly cause or exacerbate cardiac arrhythmias including:

- digoxin
- anti-arrhythmic medicines
- thyroxine
- bronchodilators e.g. salbutamol, ipratropium
- other sympathomimetic medicines e.g. pseudoephedrine, methylphenidate (Ritalin®)
- other anticholinergic medicines including tricyclic antidepressants e.g. amitriptyline
- antihistamines especially first generation “sedating” antihistamines e.g. diphenhydramine
- methylxanthines e.g. theophylline, aminophylline

8 Examination

Quick info:

Physical examination:

- assess pulse both at rest and on exertion
- check blood pressure (BP) in both arms
- palpate peripheral and jugular venous pulses – check for carotid artery bruits
- look for signs of:
  - hypoxia
  - cardiac failure
  - thromboembolism
  - valvular heart disease
  - coronary artery disease
  - anaemia
  - cyanosis
  - peripheral oedema
  - stigmata of endocarditis
  - thyrotoxicosis
9 Electrocardiogram (ECG)

Quick info:
A 12 Lead Electrocardiogram (ECG) should be performed in all patients, whether symptomatic or not, in whom Atrial Fibrillation (AF) is suspected because an irregular pulse has been detected [1].

**A 12 Lead ECG should be accessible within 10 minutes; if held in the practice setting, clinical team members should know how to read the tracings.**

Click here for pictures of ECG readings.

A typical ECG trace for AF would include [3]:
- no distinct P-waves visible
- variable and completely irregular baseline best seen in V1
- irregularly-spaced narrow QRS complexes unless patient has a bundle branch block
- unless the heart is under excess sympathetic or parasympathetic stimulation, the ventricular rate is variable and usually between 80 and 180 beats per minute

**NB: Patients with a pacemaker should be treated as per the pathway, routine follow-up with cardiac physiologist and regular checks on pacemaker to continue as normal.**

A rapid, irregular, sustained, wide QRS complex tachycardia could suggest AF with conduction via an accessory pathway. The ventricular response in AF depends on many things, including [1]:
- atrioventricular (AV) nodal properties
- the level of vagal and sympathetic tone
- drugs that affect AV nodal conduction such as:
  - beta blockers
  - non-dihydropyridine calcium-channel blockers
  - digoxin

The 12 Lead ECG should be inspected for signs of structural heart disease, including [2]:
- acute or old myocardial infarction
- left ventricular hypertrophy
- bundle branch block
- ventricular pre-excitation (e.g. Wolff-Parkinson-White Syndrome)

In patients with suspected symptomatic AF in whom initial ECG is negative, consider additional ambulatory ECG monitoring in order to document the arrhythmia (see Ambulatory Monitoring box) [2].

ECG monitoring should also be considered for detection of ‘silent’ AF in patients who may have sustained an AF-related complication [2].

10 Ambulatory Monitoring

Quick info:
In patients with suspected paroxysmal Atrial Fibrillation (AF) undetected by standard ECG recording:
- a 24-hour ambulatory ECG monitor should be used in those with symptomatic episodes less than 24 hours apart
- an event recorder ECG should be used in those with symptomatic episodes more than 24 hours apart

Ambulatory monitoring available via Whanganui hospital:
- 24-hour Holter Monitor
- 2-week Event Recorder

11 RED FLAG! or Duration < 48hrs

Quick info:
Although most patients in Atrial Fibrillation (AF) present without haemodynamic compromise, some are significantly compromised and require immediate hospitalisation and urgent intervention to:

- alleviate symptoms of breathlessness, chest pain, and loss of consciousness
- restore haemodynamic stability

**Patients at the greatest risk from haemodynamic instability are those with:**

- a ventricular rate greater than 150bpm
- ongoing chest pain
- unwell with signs of poor perfusion

Refer to Emergency Department for urgent assessment if the person has any of the following:

- a rapid pulse (greater than 150 bpm) and/or low blood pressure (systolic blood pressure less than 90mmHg)
- loss of consciousness, severe dizziness, ongoing chest pain, or increasing breathlessness
- a complication of AF, such as stroke, TIA or acute heart failure

If duration is < 48hrs, then pharmacological or synchronised electrical cardioversion may be considered in secondary care. If patient has known Wolff-Parkinson-White syndrome refer to ED.

12 Consider Differential Diagnoses

Quick info:

The following may present with a rapid irregular pulse and mimic Atrial Fibrillation (AF) [2]:

- atrial tachycardias
- atrial flutter
- rare forms of frequent atrial ectopy (rarely)

An ECG recording during the arrhythmia will usually differentiate the common diagnosis of AF from other rare supraventricular rhythms with irregular RR intervals, or the common occurrence of ventricular extrasystoles.

Occasionally, when the ventricular rate is fast, atrioventricular nodal blockade may help to unmask atrial activity. Techniques include (after excluding bruit):

- the Valsalva manoeuvre
- carotid massage

13 Investigations

Quick info:

**Order the following investigations:**

- complete blood count (CBC)
- thyroid stimulating hormone (TSH)
- sodium and potassium
- creatinine/eGFR
- random finger prick (glucose)/ HbA1C
- liver function test (LFT)
- INR (if warfarin is to be initiated)
- chest X-ray
- NT-pro-BNP to detect heart failure
- echocardiography (ECHO) **only if:**
  - significant murmur or
  - if considered candidate for surgical intervention or
  - clinical signs of cardiac failure
  - **and a** candidate for anticoagulation (not a candidate if clinically mitigating circumstances exist e.g. severe dementia, limited life expectancy, high falls risk)
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Medicine > Cardiology > Atrial fibrillation

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• NB: ECHO adds little to the management of Atrial Fibrillation (AF) in patients without clinical signs and symptoms of cardiovascular disease
• for the ECHO referral form open the “Echocardiogram (code ECHOAF)” outbox document within Medtech

Rationale for suggested tests:
• CBC to exclude anaemia or infection
• TSH to exclude hyperthyroidism
• electrolytes to exclude underlying metabolic abnormalities
• creatinine/eGFR to check renal function
• if considering dabigatran the calculated creatinine clearance is more accurate
• random finger prick (glucose)/ HbA1C to exclude diabetes
• LFT prior to anticoagulation or high alcohol intake
• chest X-ray in cases where shortness of breath is a significant feature as heart failure may co-exist or there may be other lung pathology
• NT-pro-BNP to detect heart failure

Paramedic protocols:
• St John use Amiodarone for uncontrolled AF with compromise

14 Transfer to Emergency Department

Quick info:
The referring clinician is required to arrange the transfer of care.
A clinical handover should take place over the phone and followed up with necessary clinical documentation reporting AF.
Call Whanganui Hospital on 06-348 3197 (ED GP Bat phone).
NB: The Emergency Department requires formal documentation (clinical assessment, investigations and working diagnosis/problem list and any intervention to date):
  • fax documentation to ED 06-348 1309

15 Consider Causes of Atrial Fibrillation

Quick info:
Consider causes of Atrial Fibrillation (AF):
• often caused by co-existing medical conditions both cardiac and non-cardiac
• common cardiac causes include:
  • ischaemic heart disease
  • rheumatic heart disease - specifically mitral valve disease
  • hypertension
  • sick sinus syndrome
  • pre-excitation syndromes, e.g. Wolff-Parkinson-White
• less common cardiac causes include:
  • cardiomyopathy or heart muscle disease
  • pericardial disease, including effusion and constrictive pericarditis
  • atrial septal defect
  • atrial myxoma
• non-cardiac causes include:
  • acute infections, especially pneumonia
  • electrolyte depletion
  • lung carcinoma
  • other intrathoracic pathology, e.g. pleural effusion
Risk factors include:

- increasing age:
  - the prevalence of AF roughly doubles with each advancing decade of age, from 0.5% at age 50-59 years to approximately 10% in people aged greater than 80 years
- ethnicity - Maori & Pacific People
- diabetes mellitus
- hypertension
- symptomatic heart failure [2]:
  - present in 30% of AF patients
  - can be both a consequence and a cause of AF
- valvular heart disease present in 30% of AF patients [2]
- cardiomyopathies carry an increased risk for AF, especially in young patients
- surgery, especially cardiothoracic operations such as thoracotomy and coronary artery bypass graft
- overt thyroid dysfunction can be the sole cause of AF and may predispose to AF-related complications
- obesity
- lifestyle factors, such as:
  - excessive alcohol consumption
  - excessive caffeine consumption
  - emotional or physical stress
- sleep apnoea may be a pathophysiological factor for AF due to apnoea-induced increases in atrial pressure and size, or autonomic changes

16 Clinical Evaluation

Quick info:

Atrial Fibrillation (AF) is generally classified into three types, although this may require further investigations and specialist physician input to determine. Knowing the type helps to guide treatment decisions regarding rate or rhythm control.

The three types are:

- paroxysmal AF:
  - characterised by recurrent episodes of AF that last less than seven days (although often less than 24 hours) and resolve spontaneously within that time
  - may present symptomatically or asymptomatically
  - may require rate control drugs (e.g. metoprolol or diltiazem)
  - rhythm control is the preferred treatment

- persistent AF:
  - characterised by episodes of AF that last more than seven days and that has not spontaneously resolved within this time
  - treatment is rate and rhythm control depending on the individual patient situation

- permanent AF:
  - AF that has been present for more than one year and cardioversion has failed or not been attempted
  - rate control is the preferred treatment

Clinical evaluation should ideally include determination of the European Heart Rhythm Association (EHRA) score:

- EHRA class I no symptoms
- EHRA class II mild symptoms, normal daily activity not affected
Atrial Fibrillation (AF) - Suspected and Ongoing
Management in General Practice

• EHRA class III severe symptoms, normal daily activity affected
• EHRA class IV disabling symptoms, normal daily activity discontinued

NB: The EHRA score only considers symptoms that are attributable to AF and reverse or reduce upon restoration of sinus rhythm or with effective rate control [2].

17 Initiate Rate Control Medication

Quick info:
Rate control is not required if rate < 100 and asymptomatic.
If AF <48 hours or there has been anticoagulation for >4 weeks, consider cardioversion – refer to ED. If clinically mitigating circumstances exist (e.g. severe dementia or limited life expectancy) then cardioversion is not indicated.
The ventricular rate may be controlled using beta blockers (not sotalol) or rate limiting calcium channel blockers (verapamil or diltiazem).
The choice of a medicine for rate control in primary care should be guided by the presence of co-morbidities and also by the level of activity of the patient.

NB: Digoxin does not decrease heart rate of arrhythmia onset or mean heart rate during Atrial Fibrillation (AF) and therefore is not indicated in PAF. See Rate Control Medication.

As a guide, target heart rate should be 100 beats per minute at rest and 115 beats per minute with moderate walking.
If paroxysmal AF is suspected or diagnosed initiate rate control medication and consider referral to specialist, however the decision to treat is usually based on:
• whether there is need for symptom and heart rate control
• presence of co-morbidities
• clinical evidence of structural or ischaemic heart disease
If the person has infrequent paroxysms and few symptoms, the following options exist:
• no-drug treatment strategy:
  • patients with asymptomatic paroxysmal episodes in whom absence of structural or ischaemic heart disease been confirmed require no treatment
• a pill-in-the-pocket strategy:
  • involves self-administration of an antiarrhythmic drug (usually flecainide) at the onset of AF episodes
  • associated with an increased risk of proarrhythmia
  • generally only advocated in patients with a low risk of proarrhythmia and other adverse side effects, indicated by:
    • absence of structural heart disease, heart failure and left ventricular dysfunction
    • evidence that the antiarrhythmic drug used has previously worked successfully with no adverse effects e.g. after at least one inpatient trial of the drug administered as a single oral dose under ECG monitoring

Seek appropriate specialist advice if there is uncertainty over whether to prescribe medication [3].

NB: Patients on long-term medication for paroxysmal AF should be kept under review to assess the need for continued treatment and the development of any adverse effects.
In the absence of asthma, initiate metoprolol CR 23.75mg – 47.5mg daily and titrate up as required. Alternatively, diltiazem CD 120mg daily and titrate up as needed. Digoxin can be considered in older people - 62.5mg daily and titrate up as needed. Monitor liver function and digoxin levels.

18 Assess Stroke Risk

Quick info:

Stroke risk [3]:
• atrial fibrillation (AF) is an independent risk factor for stroke the annual risk for stroke is 5-6 times higher in people with AF than in people in sinus rhythm
• stroke that occurs in association with AF is also more likely to result in greater mortality, morbidity, disability, and longer hospital stays than stroke in people without AF

Risk should be reassessed [3]:
• if patient develops diabetes, hypertension or cardiovascular disease
Atrial Fibrillation (AF) - Suspected and Ongoing Management in General Practice

19 Consider Bleeding Risk

Quick info:
The European Society of Cardiology (ESC) recommends using the HAS-BLED bleeding risk score tool [2] (click for the HAS-BLED Bleeding Risk Scores).

If score is ≥3 do not anti-coagulate without additional advice.

20 Antithrombotic Therapy

Quick info:
Antithrombotic therapy is recommended for all patients with Atrial Fibrillation (AF) unless either [2]:

• patient is at low risk (CHA₂DS₂VASc = 0); or
• clinically mitigating circumstances exist e.g.
  • severe dementia, limited life expectancy, high falls risk
  • inability to cope with anticoagulation monitoring due to sporting activities

The absolute benefit of antithrombotic therapy, e.g. warfarin or dabigatran for stroke prevention increases with age [2].
AF patients aged 75 years and older (even with no other associated risk factors) have a significant stroke risk and derive benefit from warfarin or dabigatran [2].
See antithrombotic therapy recommendations based on the CHA₂DS₂VASc Scoring Tool / score sheet .

Cultural considerations:
There are numerous accounts of the anti-platelet effects of kawakawa. Clinicians need to ensure they have asked Maori clients if they are using any Rongoa Maori (e.g. herbal remedies, physical therapies and spiritual healing).

Management options for general practice initiated warfarin based anticoagulation:
General practice may choose to manage the initiation and ongoing management of warfarin anticoagulation dosing as per the Best Practice (BPAC) low dose warfarin protocol

Management options for Emergency Department initiated warfarin based anticoagulation:
All patients initiated on warfarin for embolic stroke prophylaxis due to atrial fibrillation should be commenced on the ‘Emergency department specific’ abbreviated warfarin loading pathway. See the Emergency Department abbreviated warfarin loading pathway.

Prior to discharge and ongoing care by the patient’s GP, the following areas need to be considered, completed and/or handed over to the primary care provider:

• has a referral fax been sent to the GP?
• has telephone handover occurred to the GP?
• has the patient received education regarding their warfarin?
  • if the patient has not received education please indicate this on the fax form and verbally hand this over to the GP
• has the patient been given a blood/lab form with ‘for the attention of Dr (GP name/practice)’

NB: all patients are initiated on warfarin by the ED or GP (loading of warfarin will normally occur by the GP utilising the ‘BPAC INR/Warfarin computerised decision tool’). Medlab Whanganui no longer loads patients using warfarin. Medlab will manage patients following achievement of therapeutic dose and routine maintenance is required.

Marevan and Coumarin are available in NZ:
Marevan accounts for approximately 95% of prescriptions of warfarin in NZ
• the brands are not interchangeable and come in different tablet strengths
• during community initiation only 1mg tablets should be used to minimise confusion
• attach the following note to patients first prescription requesting pharmacist counselling and information on oral anticoagulant
use

Drugs not to use:
• if warfarin or dabigatran is offered, aspirin should not usually be taken concomitantly, as it provides no additional benefit and may increase the risk of bleeding [1]
• the selection of antithrombotic therapy should be considered using the same criteria irrespective of the pattern of AF (i.e. paroxysmal, persistent or permanent [2]

NB: The use of clopidogrel or a combination of aspirin and clopidogrel are not recommended for managing AF in primary care [3]. If the patient has other indications for clopidogrel, continue in addition to warfarin.

Dabigatran dosing:
Contraindicated if creatinine clearance < 30 mls/min or if patient cannot swallow capsules whole or if patient unable to adhere to
dosing schedule:
• <75 years with creatinine clearance >50mL/min – 150mg twice daily
• <75 years with creatinine clearance 30-50mL/min – consider reduced dose of 110mg twice daily if bleeding risk is high and the thromboembolic risk is low
• <75 years with creatinine clearance <30mL/min – avoid dabigatran (no supporting data in this population)
• 75-80 years – consider reduced dose of 110mg twice daily if bleeding risk is high and the thromboembolic risk is low
• >80 years – 110mg twice daily

Note:
• dabigatran is contraindicated in prosthetic heart valve replacement. If the patient is on warfarin for this indication it should not be changed to dabigatran
• there is no data to support the use of dabigatran in population age <18 years
• reassess renal function at least once a year or when renal function could decline
• patients who develop acute renal failure should discontinue dabigatran (refer datasheet). Antithrombotic therapy should be reassessed when appropriate

The European Society of Cardiology (ESC) recommends using the HAS-BLED bleeding risk score tool [2] (HAS-BLED Bleeding Risk Scores):
• the HAS-BLED score should be considered as a calculation to assess bleeding risk, whereby a score of 3 indicates “high risk” and some caution and regular review is needed, following the initiation of antithrombotic therapy, whether with oral anticoagulant or antiplatelet therapy

21 Monitoring and management of AF

Quick info:
Follow-up within 1 week [3].
Check whether the patient is tolerating the medication – if the patient is unable to tolerate the current medication, prescribe an alternative.
Review symptoms, heart rate, and blood pressure.

Stroke risk [3]:
• atrial fibrillation (AF) is an independent risk factor for stroke

Embolic and Bleeding Risk should be reassessed [3]:
• if patient develops diabetes or new cardiac disease
• when patient reaches age 65 and 75 years
• deteriorating medical and physical conditions

The European Society of Cardiology (ESC) recommends using the CHA2DS2-VASc Scoring Tool (CHA2DS2-VASc score sheet) for a more detailed and comprehensive stroke risk assessment [2].
The European Society of Cardiology (ESC) recommends using the HAS-BLED bleeding risk score tool [2] (click for the HAS-BLED Bleeding Risk Scores).
22 Rate Controlled AF

Quick info:

Continue to reduce stroke risk and monitor patient.

Unless asymptomatic, at follow-up visits, a 12 Lead ECG should be recorded to document the rhythm and rate, and to investigate disease [2].

A 12 Lead ECG should be accessible within 10 minutes; if held in the practice setting, clinical team members should know how to read the tracings.

If any worsening of symptoms occurs, consider repeating:

- blood tests
- echocardiogram

Questions to consider at follow up include [2]:

- has the risk profile changed (e.g. new diabetes or hypertension), especially with regard to the indication for anticoagulation?
- is anticoagulation now necessary? For example:
  - have new risk factors developed?
  - has the need for anticoagulation passed (e.g. post cardioversion in a patient with low thrombo-embolic risk)?
- have the patient’s symptoms improved on therapy? If not, should other therapy be considered?
- is the rate control approach working properly? Has the target for heart rate at rest and during exercise been reached?

23 Uncontrolled AF

Quick info:

As a guide, target heart rate should be ≤ 100 beats per minute at rest and ≤ 120 beats per minute with moderate exertion (as appropriate to the individual).

Seek Specialist Physician/Cardiologist advice if there is uncertainty over whether to prescribe medication and/or if patients continue to experience symptoms related to Atrial Fibrillation (AF) during activity [3].

24 Rhythm Controlled AF

Quick info:

NB: Rhythm control should only be started on specialist advice.

Patients on antiarrhythmic drug therapy should be assessed for potential proarrhythmic ECG precursors, such as [2]:

- lengthening of QRS or QT intervals
- non-sustained ventricular tachycardia
- pauses

Questions to consider:

- are there signs of proarrhythmia or risk of proarrhythmia? If so, should the dose of an antiarrhythmic drug be reduced or a change made to another therapy?
- has paroxysmal Atrial Fibrillation (AF) progressed to a persistent/permanent form, in spite of antiarrhythmic drugs? In such a case, should another therapy be considered?
- is anticoagulation now necessary? For example:
  - have new risk factors developed?
  - has the need for anticoagulation passed (e.g. post cardioversion in a patient with low thrombo-embolic risk)?

25 Review Treatment Options

Quick info:

If the patient’s symptoms and/or heart rate are not controlled, consider increasing the dose to control symptoms.

If the patient is taking the maximum drug dose, consider combining drug treatments.
Atrial Fibrillation (AF) - Suspected and Ongoing Management in General Practice

Medicine > Cardiology > Atrial fibrillation

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26 Check the Effectiveness of Treatment

Quick info:
There is an expectation that patients will predominately be managed by general practice. Refer to a Specialist Physician:

- if symptoms are not controlled with, or
- patient does not tolerate, a beta-blocker plus digoxin, or a calcium channel blocker plus digoxin [3]

The Specialist Physician/Cardiologist may consider/recommend the use of [1]:

- amiodarone
- diltiazem with a beta-blocker

29 Regular Review and Assessment

Quick info:
Risk should be reassessed [3]:

- if patient develops diabetes or new cardiac disease
- when patient reaches age 65 and 75 years

Reassess renal function at least once a year or when renal function could decline.

Recommence monitoring in patients on longterm Amiodarone [8]:

- thyroid stimulating hormone (TSH) every 6 months and for some months after discontinuation (possibly up to 12 months after cessation)
- serum TSH should also be measured when thyroid dysfunction is suspected
- liver function tests (LFT’s) every 6 months
- Chest X-ray every 12 months
- ECG every 12 months
- opthingological examination is recommend annually for patients with visual symptoms or reduced baseline vision

For information on significant drug interactions view this document - Significant Drug Interactions [8].

30 Specialist Physician Referral

Quick info:
Refer to specialist physician WDHB with detailed referral information - send to referral center.

Do not use a combination of a beta-blocker and verapamil in primary care.
Overview

This document describes the provenance of Whanganui Regions Atrial Fibrillation Pathway. This localised pathway was last updated in March 2015.

The purpose of implementing the CCP Programme in our District is to:

- Enhance accuracy of referrals
- Use best practice guidelines
- Have all information found in one place
- Enhance partnerships and collaboration across services
- Improve patient outcomes through seamless care across primary and secondary care

To cite this pathway, use the following format:


Editorial methodology

This care map has been based on a Map of Medicine Care Map developed according to the Map of Medicine editorial methodology. The content of the Map of Medicine care map is based on high quality guidelines and practice-based knowledge provided by contributors with front-line clinical experience (see contributors section of this document). This localised version of the evidence-based, practice informed care map has been peer-reviewed by the WDHB and WRHN Collaborative Clinical Directors and Leaders Forum and with stakeholder groups.

Consumer engagement

Development of the Whanganui Collaborative Clinical Pathways focuses on person-centred care and an experience based co-design approach where consumers are invited to consult with the Health Promoter / Community Developer (who sits on each pathway working group). Consumers are asked prior if possible, or if not at the very start of the pathway process to share their experiences to assist in designing services that work for them and their families, critiquing and feeding back on suitable consumer information and resources which can then be incorporated into the pathways. Feedback obtained ensures we address consumer challenges and needs within the pathway and provide suitable services, information and resources for consumers. Additional information on patient centred care is provided by following this link and experience based co-design of health care services at http://www.kingsfund.org.uk/projects/ebcd.

References

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<td>National Institute for Health and Clinical Excellence (NICE). Assessment and diagnosis of recent onset chest pain or discomfort of suspected cardiac origin. Clinical guideline 95. London: NICE; 2010</td>
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Disclaimers
CCP Leadership Team, Whanganui

It is not the function of the CCP Leadership Team to substitute for the role of the clinician, but to support the clinician in enabling access to know-how and knowledge. Users of the Map of Medicine are therefore urged to use their own professional judgement to ensure that the patient receives the best possible care. Whilst reasonable efforts have been made to ensure the accuracy of the information on this online clinical knowledge resource, we cannot guarantee its correctness and completeness. The information on the Map of Medicine is subject to change and we cannot guarantee that it is up-to-date.