Clinical fact sheet: atrial fibrillation screening and diagnostic work up[1]

Heart Foundation

- **Atrial fibrillation (AF) occurs in 2-4% of the population in developed nations like Australia.**
- **10% of all ischaemic strokes are associated with previously unknown AF**

The basics of screening for AF

- ✓ **Screen all patients over 65 AND confirm suspected AF with electrocardiogram (ECG)**
- ✓ **Complete diagnostic work-up with echocardiography and thyroid function tests**
- ✓ **Identify and manage intercurrent risk factors and comorbidities**

1. Screen all patients over 65 and confirm AF with ECG

Stroke risk is similar for asymptomatic and symptomatic patients with AF.

- Opportunistic point-of-care screening in the clinic or community should be conducted in people aged 65 years or more.
- This is most easily accomplished by pulse palpation, followed by a 12-lead ECG if irregular (to confirm the diagnosis)
- This screening can be incorporated into standard consultations or undertaken by practice nurses during chronic care consultations or immunisations.

AF meets the justification for screening, which is to find patients with unknown asymptomatic AF at high-enough risk of stroke to result in a reduction in stroke burden from combined screening and treatment

Patients with pacemakers and defibrillators will have their device interrogated regularly by their cardiologist

2. Complete diagnostic work-up with echocardiography and thyroid function tests

Initial diagnostic work-up should include:

- **Full blood count**
- **Electrolytes**
- **Renal function**
- **Thyroid function**
  - A thyroid stimulating hormone test should be undertaken in patients with newly diagnosed AF but should be delayed in acutely ill patients.
- **Transthoracic echocardiography**
  - This can assist patient management by identifying valvular heart disease, and quantifying left ventricle function and atrial size.
  - Transoesophageal echocardiography can be considered when findings might affect patient management, primarily where electrical or pharmacological cardioversion is indicated

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3. Identify and manage intercurrent risk factors and comorbidities

Cardiovascular risk factors are recognised contributors to the development of AF - the more risk factors that an individual has, the greater the likelihood that a person will develop AF and more persistent AF.

Intercurrent risk factors and comorbidities— including hypertension, diabetes, heart failure, valvular heart disease and alcohol excess—should be identified and their management considered an important component of treatment in patients with AF.

Treatment targets for risk factors shown to improve outcomes in AF include:

- **Intensive weight management** to a target of greater than or equal to 10% body weight loss, aiming for a body mass index below 27 kg/m^2—and concomitant management of associated cardiovascular risk factors to target levels

- **Screening and management of sleep apnoea**, including maximal compliance with continuous positive airway pressure therapy if the apnoea–hypopnea index is equal to or greater than 15/hour

- **Exercise** that improves aerobic capacity for up to 210 minutes per week

- **Blood pressure** of less than or equal to 130/80 mm Hg at rest

- **Diabetes** - an HbA1c of less than or equal to 6.5%

- **Lipids** - targets per overall cardiovascular risk profile

- **Smoking cessation**

- **Alcohol consumption** – limit to less than or equal to three standard drinks per week

References

1. Brieger D, et al. Heart, Lung and Circulation, 2018; 27(10): 1209-1266
2. Gattellari M, et al. Cerebrovascular Diseases, 2011; 32: 370-382

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