Cardiology referral management guidelines:

When considering a Cardiology referral, please consider these referral guidelines for management of your patient prior to referral.

A/Director of Department: Dr Atifur Rahman

Specialist advice service: Please contact Cardiology registrar on-call if you need advice prior to referral via GCUH switchboard by contacting them on 5687 0003.

Email advice is available via GCCardiologyAdvice@health.qld.gov.au for less urgent requests.

Cardiology specialists (special interest):

Dr Greg Aroney – (General)

Dr Atifur Rahman (Interventional/General)

Dr Ravinder Batra (Interventional/General)

Dr Rohan Jayasinghe (Interventional/General)

Dr Laurie Howes (General/Hypertension)

Dr Selva Niranjan (General)

Dr Nassar Essack (Interventional/General)

Dr Ian Hamilton-Craig (Dyslipidaemia)

Minimum information required in all Cardiology referrals

When making a referral please ensure the letter is addressed to the A/Director of the department: Dr Atifur Rahman.

The clinical information and pre-requisite investigations requirements are currently found on GP referral templates for GP software programs, the latest of which can be found at http://www.gpgc.com.au/cmsItem.aspx?CK=187.

Clinical information

To safely categorise/prioritise your patient, the Cardiology department need the following information as a minimum to be clearly provided in every referral:

- Patient details
- Reason for referral
- Has the patient been seen by a GCHHS consultant in this specialty in the past?
  - If yes, provide GCHHS consultant’s name
- Duration of problem (e.g. days, weeks etc.)
• Examination findings
• Treatment to date (include any previous Cardiology reports or investigations eg Echocardiograms, ECGs, CABG reports etc even if done at GCUH
• Smoking History

Pre-requisite investigations required
Please only send investigations relevant to the treating clinician (as requested).

If the clinical information or pre-requisite investigations are not clearly provided, your referral may be returned to you asking for more information.

Services provided at Gold Coast Health (click to navigate to area)

(Ctrl+left click to navigate to area)

**Cardiac Arrhythmias**
- Atrial Fibrillation/Flutter
- Supraventricular Tachycardia
- Ventricular Tachycardia
- Palpitations
- Syncope/Presyncope

**Cardiac Failure**
- Acute Cardiac Failure
- Chronic Cardiac Failure
- Cardiac Murmurs
- Hypertension
- Lipid Disorders

**Cardiac Pain**
- Acute Chest Pain
- Chronic Chest Pain
- Angina Pectoris

Current range of clinics available include:
• General Cardiology
• Lipid Clinic

Cardiothoracic service now offered at Gold Coast University Hospital.
To refer to this service you will need to refer via the cardiology team.

**Community Providers for Cardiac investigations – Bulk Billing**

Please be aware there are a range of cardiac investigations available in private including exercise stress test, echo, stress echo, 24 hour holter, event or loop recorder, 12 lead ECG & reporting, tilt testing.
It may be possible for most of these investigations (apart from stress echos) to be bulk billed if asked, on a one off occasion. This isn’t always possible so it is worth the patient clarifying the cost of the test prior to making the appointment.

If any of these tests are requested in evaluation section of these guidelines then it can be useful to have these provided before referral to the outpatients.

There are a range of private cardiology providers available on the coast that can offer these tests in advance of referral.

**Condition specific guidelines**

**Cardiac Arrhythmias**

**Atrial Fibrillation/Flutter**

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>History:</td>
<td>Rate (ventricular) control</td>
<td>Acute – depending on severity and symptoms:</td>
</tr>
<tr>
<td>• Rate</td>
<td>Rhythm control</td>
<td>If symptomatic – IMMEDIATE referral</td>
</tr>
<tr>
<td>• Resolved?</td>
<td>Treating underlying cause of AF</td>
<td>Chronic – consider referral if difficulties in rate control or anticoagulation or recurrent paroxysmal AF – Refer as Urgent, depending on severity.</td>
</tr>
<tr>
<td>• Intermittent</td>
<td>minimising risk of thromboembolism.</td>
<td></td>
</tr>
<tr>
<td>• TIA’s/stroke</td>
<td>Common rate controlling drugs includes metoprolol, diltiazem, verapamil and digoxin.</td>
<td></td>
</tr>
<tr>
<td>Associated symptoms – angina, SOB</td>
<td>If rate is persistently &gt; 100/mins consider referring to A &amp; E.</td>
<td></td>
</tr>
<tr>
<td>Investigations:</td>
<td>Assess risk of stroke with CHADS VASc score (C=congestive cardiac failure (1 point), Hypertension (1 point),Age (65-75=1 point,&gt;75 2 points)Diabetes (1 point),Stroke/TIA (2 point),Vascular disease (1 point),Gender (female 1 point)</td>
<td></td>
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<tr>
<td>• ECG</td>
<td>Consider Warfarin/New oral anticoag (NOACS) if score is 2 or more.</td>
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<td>If available:</td>
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<tr>
<td>• TFTs</td>
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<tr>
<td>• CXR</td>
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<tr>
<td>• CHADS score</td>
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</tr>
</tbody>
</table>
## Supraventricular Tachycardia

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
</table>
| History:  
  - Rate  
  - Resolved?  
  - Intermittent  
  - TIA’s/stroke  
  Associated symptoms – angina, SOB  
  Investigations:  
    - ECG  
    - If available:  
      - TFTs  
      - CXR | If the patient is stable, vagal manoeuvres can be used to slow the heart rate and to convert to sinus rhythm.  
If vagal manoeuvres are not successful, patient should be referred to A&E where adenosine can be used to revert to sinus rhythm.  
For recurrent SVT, prophylactic calcium channel blockers or beta-blockers should be used.  
Referral to an electrophysiologist should be considered for radiofrequency catheter ablation in patients with recurrent SVT with failed medical treatment. | **Acute** – depending on severity and symptoms:  
If symptomatic – **IMMEDIATE** referral  
**Recurrent episodes** – Refer Urgent, depending on severity and associated symptoms. |

## Ventricular Tachycardia

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
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</thead>
</table>
| Most patients with documented VT and should be referred to the A&E immediately.  
VT with hemodynamic compromise should be considered for immediate cardioversion.  
A 12 lead ECG at the time of VT should be obtained for future reference, risk stratification & management. | | Refer IMMEDIATELY |
# Palpitations

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
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</tr>
</thead>
</table>
| History:  
- Duration  
- Frequency  
- Associated symptoms  
- Caffeine intake  
Investigations:  
- ECG (during episode if possible) | Palpitation is a common symptom which is most often due to benign arrhythmias.  
Some of the causes of palpitations may be due to serious arrhythmias (e.g sustained /non sustained VT).  
ECG at the time of palpitation (even if normal) may have important diagnostic clue.  
Selective cases may require echocardiography, 24 H holter monitoring and/or EST to exclude structural heart disease and to identify arrhythmias respectively. | If associated symptoms such as breathlessness, refer Urgent.  
If no associated symptoms or breathlessness, refer Routine. |

# Syncope/Presyncope

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
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</thead>
</table>
| Relevant history suggesting aetiology:  
- Arrhythmias - AF  
- Cardiac murmur  
- Cardiac disease  
- GI bleeding  
- Neurological signs  
- Postural hypotension  
- Medications  
Investigations if available:  
- FBE  
- U&Es, Cr  
- TFTs  
- ECG | Syncope may be a symptom of a life-threatening condition such as aortic dissection, pulmonary embolism, acute myocardial infarction, or outflow tract obstruction, all of which require immediate identification & treatment.  
Common causes of syncope include situational syncope, vasovagal syncope & orthostatic hypotension. More than 80% of syncopal events are vasovagal. The history, physical examination and a bed side ECG provide most of the clues to the diagnosis.  
Syncope associated with exertion or palpitations, | Syncope – depending on history and circumstances - refer IMMEDIATELY— send  
Refer Urgent – phone Cardiology Registrar/Consultant on call on 9076 2000 and fax referral to The Heart Centre on 9076 2461. |
previous history of LV dysfunction, structural heart disease or an abnormal ECG (e.g.; Tachy/brady arrhythmias, LVH, previous MI) may suggests cardiac causes.

### Cardiac Failure

#### Acute Cardiac Failure

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Decompressed heart failure should be immediately referred to the hospital.</td>
<td>Refer IMMEDIATELY</td>
</tr>
</tbody>
</table>

#### Chronic Cardiac Failure

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medications</td>
<td>Decompressed heart failure should be immediately referred to the hospital.</td>
<td>Refer Urgent</td>
</tr>
<tr>
<td>FBE</td>
<td>In select cases BNP level Please try to arrange an echocardiography and initiate appropriate medications (ACEI, beta blocker, diuretics) unless contraindicated.</td>
<td></td>
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<tr>
<td>U&amp;E, Cr</td>
<td>Heart Foundation Heart Failure</td>
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<tr>
<td>TFT</td>
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<tr>
<td>CXR</td>
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<tr>
<td>ECG if available</td>
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<tr>
<td>Echo</td>
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</tbody>
</table>
## Cardiac Murmurs

**Evaluation**
- **History:**
  - Duration
  - Rheumatic fever
  - Associated symptoms – angina, syncope, SOB, palpitations

**Investigations:**
- ECG
- CXR

**Management**
- Incidental findings of murmur are relatively common and many cases can be managed in the community.
- If structural heart disease is suspected an echocardiography should be arranged.
- If the patient has history of syncope (especially exercise induced), pre syncope, dyspnoea/chest pain on exertion should be referred to the hospital.
- If patient presents with heart failure, suspected endocarditis should be immediately referred to the hospital.

**Referral Guidelines**
- If endocarditis is suspected, refer IMMEDIATELY
- If symptoms or cardiomegaly, refer Urgent
- Otherwise – Refer Routine

## Hypertension

**Evaluation**
- **History:**
  - Underlying cardiac, renal or endocrine disease
  - Medications
  - Associated symptoms

**Investigations:**
- Fasting lipids

**If available:**
- U&Es, Cr
- Blood glucose
- ECG
- MSU
- Echocardiography can be performed at The Alfred

**Management**
- Referral to the hospital may be indicated if malignant or accelerated phase hypertension, severe hypertension (e.g. 220/120 mmHg), suspected secondary hypertension, for people aged under 40 years and when blood pressure remains uncontrolled despite treatment with maximum tolerated doses of four drugs. [Heart Foundation Hypertension Guidelines](#)

**Referral Guidelines**
- **Malignant hypertension** – IMMEDIATE referral
- **Severe HPT (>200/120)** – refer

**Refer if:**
- HPT difficult to control
- Medication intolerance
- Changing pattern of HPT
- Decline in renal function on ACEIs
- Renal artery stenosis

Priority Urgent or Routine depending on circumstances.
### Lipid Disorders

<table>
<thead>
<tr>
<th>Evaluation</th>
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</tr>
</thead>
</table>
| **History: Risk factor evaluation:**  
- Family history  
- Smoking  
- HPT  
- Diabetes  
- Cardiovascular disease  
- Obesity  
**Investigations:**  
- Fasting lipids  
If available:  
- Blood glucose  
- TFTs  
- U&Es, Cr, LFT’s  | **Commence statins for anyone with history of CVD**  
- Depending on cardiac risk factors consider commencing statins  
- See [NICE guidelines for lipid modification](#)  
- [QRISK2 Calculator](#) for 10 year risk of heart attack or stroke.  | **Consider referral if:**  
- Patients with poorly controlled familial hyperlipidaemia  
- Difficult cases  
- If extreme elevation of triglycerides, refer without delay due to risk of pancreatitis.  |

### Cardiac Pain

#### Acute Chest Pain

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
</table>
| **Risk factors**  
**Family history**  
**Medications**  
**Fasting lipids**  
**Investigations if available:**  
- Cardiac enzymes if available  
- FBE  
- U&Es, Cr  
- Blood glucose  
- ECG  | **Depends on cause of suspected cause of chest pain:** see next column  | **AMI or acute unstable angina** — Refer IMMEDIATELY  
**New onset angina** — refer Urgent  
**Suspected pulmonary embolism or aortic dissection** — refer IMMEDIATELY  
If probable stable angina— refer Urgent, depending on severity.  
If prolonged, severe worsening pattern— refer Urgent  |
### Chronic Chest Pain

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<thead>
<tr>
<th>Evaluation</th>
<th>Management</th>
<th>Referral Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Coexisting disease</td>
<td>Intermediate to high risk patients with a normal resting ECG and good exercise tolerance may be considered for EST (unless contraindicated).</td>
<td>Prior discussion with Cardiology registrar/consultant. Consider email advice <a href="mailto:GCCardiologyAdvice@health.qld.gov.au">GCCardiologyAdvice@health.qld.gov.au</a> or contact Cardiology registrar via phone if chronic.</td>
</tr>
<tr>
<td>• Associated symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Risk factors</td>
<td></td>
<td></td>
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<tr>
<td>• Family history</td>
<td></td>
<td></td>
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<tr>
<td>• Medications</td>
<td></td>
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<tr>
<td>• Fasting lipids</td>
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<tr>
<td>Investigations if available:</td>
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<td>Prior discussion with Cardiology registrar/consultant. Consider email advice <a href="mailto:GCCardiologyAdvice@health.qld.gov.au">GCCardiologyAdvice@health.qld.gov.au</a> or contact Cardiology registrar via phone if chronic.</td>
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<tr>
<td>Similarly patients with abnormal ECG (e.g. LBBB) or with limited exercise tolerance may be considered for myocardial perfusion scan.</td>
<td>Prior discussion with Cardiology registrar/consultant. Consider email advice <a href="mailto:GCCardiologyAdvice@health.qld.gov.au">GCCardiologyAdvice@health.qld.gov.au</a> or contact Cardiology registrar via phone if chronic.</td>
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<tr>
<td>Selective patient may be considered for echocardiography to exclude structural heart disease.</td>
<td>Prior discussion with Cardiology registrar/consultant. Consider email advice <a href="mailto:GCCardiologyAdvice@health.qld.gov.au">GCCardiologyAdvice@health.qld.gov.au</a> or contact Cardiology registrar via phone if chronic.</td>
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### Angina Pectoris

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</thead>
<tbody>
<tr>
<td>• Risk factors</td>
<td>All patients with suspected acute coronary syndrome (including unstable angina) should be immediately referred to the hospital.</td>
<td>AMI or acute unstable angina – Refer IMMEDIATELY</td>
</tr>
<tr>
<td>• Family history</td>
<td>A patient with chronic stable angina management needs to be individualised.</td>
<td>New onset angina – refer Urgent</td>
</tr>
<tr>
<td>• Medications</td>
<td></td>
<td>Stable angina— refer Urgent, depending on severity.</td>
</tr>
<tr>
<td>• Fasting lipids</td>
<td></td>
<td>If prolonged, severe worsening pattern— refer urgent</td>
</tr>
<tr>
<td>Investigations if available:</td>
<td></td>
<td></td>
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<tr>
<td>• FBE</td>
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<tr>
<td>• U&amp;Es, Cr</td>
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<td></td>
</tr>
<tr>
<td>A patient with chronic stable angina management needs to be individualised.</td>
<td>New onset angina – refer Urgent</td>
<td></td>
</tr>
<tr>
<td>Heart Foundation Acute Coronary Syndrome</td>
<td>Stable angina— refer Urgent, depending on severity.</td>
<td>If prolonged, severe worsening pattern— refer urgent</td>
</tr>
</tbody>
</table>

Gold Coast Health would like to acknowledge these guidelines were based on Alfred Hospital GP Referral Guidelines found at [http://www.alfredhealth.org.au](http://www.alfredhealth.org.au)

#### Useful Patient Resources

- Patient.co.uk Information sheets on heart disease
- Heart Foundation