



A vision for contemporary cardiac rehabilitation with Dr Paul MacIntyre

Zoom webinar – Wednesday 12th March, 6.30-8pm

Acknowledgement of traditional owners

We acknowledge the Tasmanian Aboriginal people as the traditional owners and ongoing custodians of the land on which we are meeting today. We pay our respects to Elders past and present.

We would also like to acknowledge Aboriginal people who are joining us today.

Learning outcomes

After this session, I will be able to:

- Describe the current provision of cardiac rehabilitation in Tasmania
- Explain the aims and objectives of a cardiac rehabilitation program
- Apply a new model of care for cardiac rehabilitation in Tasmania
- Discuss the monitoring of clinical outcomes in patients with cardiovascular disease

Some housekeeping

- Tonight's webinar is being recorded
- Please use the Zoom Q&A feature to ask questions
- At the end of the webinar your browser will automatically open an evaluation survey. We appreciate you taking the time to complete this to help us improve our events programme
- Please don't forget to register for your next webinar at:
<https://www.primaryhealthtas.com.au/for-health-professionals/events/>

Presenter



Dr. Paul MacIntyre

Clinical Panel

Dr Anna Seth

GP clinical editor, Tasmanian
HealthPathways

Rebecca Smith

Senior Physiotherapist- Cardiac and
Pulmonary Rehabilitation at the
Launceston General Hospital, THS-
Hospitals North

Contemporary Cardiac Rehabilitation

An ECG tracing is visible in the background, showing a regular rhythm with distinct P waves, QRS complexes, and T waves. The tracing is overlaid on a standard grid with small squares and larger squares.

Dr Paul MacIntyre

Who am I ?

- Cardiologist at RHH
- Specialist interest in Heart Failure and Devices
- Chair of Tasmanian Cardiac Network since 2017
- Recently appointed 0.5 FTE Statewide Clinical Lead for Cardiac Services
- Cardiac Strategy with recommendations
- Annual Action Plan: public facing

Why am I talking about Cardiac Rehabilitation?

- Have A Heart Paisley 1999-2005
- Scottish Government from 2003-2008
- Glasgow University
 - Exercise and Sports Medicine 1994-2011
- Ageing athlete

Rehabilitation

- Archaic Concept
 - Implies deconditioning
 - 6 weeks of convalescence post MI
- What is its purpose ?
 - Secondary Prevention of CVD
- Vehicle to deliver for evidence-based strategies
- All cause/CVD mortality not an appropriate outcome measure
- Eligibility
- 3 groups



Eligibility

Hospital

- Group 1
 - Step change in condition
 - ACS
 - Chest pain admission
 - Revascularisation
 - PCI
 - CABG
 - Diagnostic Coronary Angiography

Primary Care

- Group 2
 - Chronic Stable
 - Known to have CHD
 - Previous event
 - Previous attendee of CR
- Group 3
 - High risk primary prevention
 - Risk factors
 - Intermediate or high risk of event over next 5 years

Group 1 Step Change

Focus Secondary Prevention

- Most receptive to health behaviour change
- All should have some engagement with cardiac rehabilitation
- Focus on secondary prevention
- Menu based CR
- Professional to present the menu to ALL eligible patients take the order
- Starter: Mode of delivery
 - Tailored to individual need
 - FTF
 - Teleheath
 - Coach
 - Cardihab
- Main course: Content
 - Tailored to individual need
 - Optimise secondary prevention
 - Treat to target
 - Lifestyle modification
 - Psychosocial interventions
 - Medical review
 - Rapid discharge
 - Cardiology teleheath



Measure effectiveness

- Programme KPIs
 - Eligible
 - Referred
 - Uptake
 - Completion
- ACRA quality indicators
- Treated to target
 - Compliance
- Treat to target
 - LDL < 1.8mmol/L
 - BP < 130/80
 - HbA1C < 7
- Lifestyle changes
 - PA levels
 - Healthy eating
 - Psychosocial well being
 - Hospital readmission



Exercise

- Exercise panacea
- Public health message
- Training for a specific goal
- Cardiovascular benefits benefits of exercise
 - Improved LV function
 - increase Cardiac output
 - Oxygen extraction by skeletal muscle
 - Increased VO₂ Max and anaerobic threshold
 - Coronary circulation
- 3 x 20 min of vigorous PA 70-85 % of predicted HR Max for age
- HIIT
- Exercise programmes in CR
- 6 min walk test



How do we measure success ?

- Integrated data base
- Automatic identification of eligible patients
- Automatic transfer of demographic information
- Baseline assessment
- Monitoring medication
- Treatment to target
- Lifestyle gains
- PROMS
- Patient recorded data
- Secondary Care Portal
 - Electronic reports



Models of Care

- All eligible patients contacted by CR team
- Private CABG patient debacle
- Menu based approach to mode of delivery and content
- Secondary care team are resource poor
- Virtual care
 - Virtual health care team navigators
- Better links
 - primary care
 - Exercise physiologists
- Cardiology follow up: new rapid review clinic established at RHH
- Virtual cardiology review to support statewide specialist nurses and primary care
- Heart Foundation project: Healthy Hearts



Other groups of patients to consider

- Decompensated HF
 - ACHD
 - Arrhythmia patients
 - Valvular heart disease
- Benefit from lifestyle modification
 - Exercise program
 - Resource dependant



Group 2: Chronic Stable CHD

- Attend Primary Care
- Previous event



Group 3 High Risk Primary Prevention

- Anticipatory care
 - Prof Graham Watt
 - Tudor Heart
- Identification
 - Structured approach
 - Opportunistic approach
 - Community based
- Heart Health check (Heart Foundation)
- Use of new Australian Cardiovascular Risk calculator (Heart Foundation)
- Embedded into Medical Director and Best Practice
- Predict NZ 2014
- ASSIGN Scotland 2007



Australian CVD risk calculator

AusCVDRisk is a risk assessment, communication and management tool for health professionals. To learn more about how this calculator works, refer to the Australian Guideline for assessing and managing cardiovascular disease risk.

1 Enter variables

2 Consider reclassification factors

3 Discuss risk result & management

This risk assessment is recommended for the following individuals without known atherosclerotic cardiovascular disease:

- All people aged 45-79 years
- People with diabetes aged 35-79 years
- First Nations people aged 30-79 years (assess individual risk factors 18-29 years).

Clinically determined high risk*

Clinical conditions that automatically confer high risk.
If either of these apply, you will be redirected to management for high risk category

- Moderate-severe chronic kidney disease ?
- Familial hypercholesterolaemia ?
- Neither present



Australian Cardiovascular Risk Calculator

Clinically determined high risk*

Clinical conditions that automatically confer high risk.
If either of these apply, you will be redirected to management for high risk category

- Moderate-severe chronic kidney disease ?
- Familial hypercholesterolaemia ?
- Neither present

Age* ?

Years

Sex at birth* ?

- Female Male

Smoking status*

- Never smoked
 Previously smoked
 Currently smokes

Systolic blood pressure* ?

mmHg

Ratio of total cholesterol to HDL cholesterol* ?

OR enter mmol/L ▼

Use of CVD medicines within last 6 months*

- Blood pressure-lowering medicines ?
- Lipid-modifying medicines ?
- Antithrombotic medicines ?
- None

History of atrial fibrillation ?

- No Yes

Postcode ?

Diabetes* ?

- No Yes

Calculate



What does this look like in practice?



3 Identify risk category

Risk category	High	Intermediate	Low
Estimated 5-year CVD risk	≥10%	5% to <10%	<5%



Consider optional reclassification factors, which may refine risk estimates:

New

CKD (eGFR or uACR) ↑

Family historyⁱ ↑

Severe mental illnessⁱⁱ ↑

Ethnicity ↑↓

Coronary artery calcium score ↑↓

Reclassification factors are particularly relevant for people whose estimated risk is close to the threshold of another risk category.

Risk estimates represent the chance of having a cardiovascular event in the next 5 years. **Newly defined risk categories** help target pharmacotherapy to those who will benefit most while still limiting adverse effects of treatment.

ⁱ CHD or stroke in first-degree female relative aged <65 years or first-degree male relative aged <55 years

ⁱⁱ Current or recent (in the 5 years prior) mental health condition requiring specialist treatment



Table 1: Overview of CVD risk management according to risk category

Risk category	Estimated 5-year CVD risk ^a	Management	Reassessment interval
High	≥10%	Encourage, support and advise a healthy lifestyle. ^b Prescribe blood pressure-lowering and lipid-modifying pharmacotherapy. ^c	Formal reassessment of CVD risk is not generally required. High-risk status requires clinical management and follow up supported by ongoing communication.
Intermediate	5% to <10%	Encourage, support and advise a healthy lifestyle. ^b Consider blood pressure-lowering and lipid-modifying pharmacotherapy, depending on clinical context. ^c	Reassess risk every 2 years if not currently receiving pharmacotherapy to reduce CVD risk. Assess sooner if close to the threshold for high risk, if CVD risk factors worsen, or new CVD risk factors are identified. For First Nations people, reassess every year as part of an annual health check (or opportunistically) or at least every 2 years.
Low	<5%	Encourage, support and advise a healthy lifestyle. ^b Pharmacotherapy is not routinely recommended.	Reassess risk every 5 years. Assess sooner if close to the threshold for intermediate risk, if CVD risk factors worsen, or new CVD risk factors are identified. For First Nations people, reassess every year as part of an annual health check (or opportunistically) or at least every 2 years.

Risk factors that should be managed with pharmacotherapy, regardless of Aus CVD Risk Calculator results:

- **severe hyperlipidaemia** (serum total cholesterol >7.5mmol/L or LDL cholesterol ≥5mmol/L)
- **very high blood pressure** (systolic BP ≥160mmHg; diastolic BP ≥100mmHg).

Pharmacotherapy



Risk category	Pharmacotherapy	Lifestyle modification
High risk ($\geq 10\%$)	Prescribe BP and lipid lowering therapy	
Intermediate risk (5 to $<10\%$)	Consider prescribing BP and lipid lowering therapy	Recommended for all risk categories
Low risk ($< 5\%$)	Pharmacotherapy not routinely recommended	

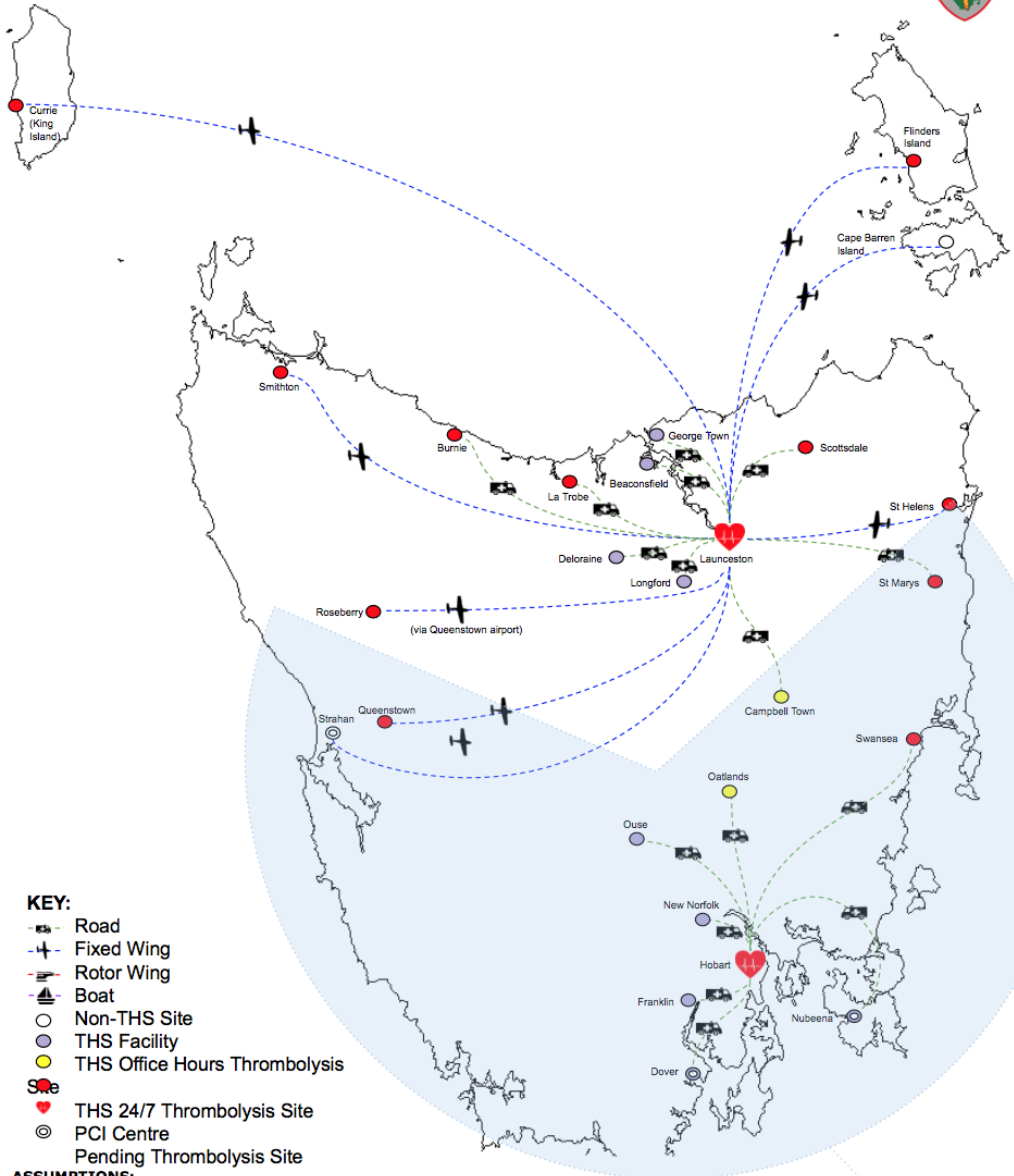
- Detailed advice on pharmacotherapy not within scope
- The higher the initial CVD risk, the greater the expected reductions in risk. For people with intermediate or high risk of cardiovascular events, any reduction in blood lipid levels reduces this risk
- Reducing blood pressure reduces CVD risk, in a wide range of age groups, irrespective of baseline blood pressure. The higher the initial CVD risk, the greater the benefit.
- Targets not provided, should be a shared discussion between clinician and patient

Groups 2 and 3 Primary care setting

- Human resource issue
- Menu based approach
- eReferral to programme by GPs
- Cardiac Rehabilitation portal
- Navigation through the programme virtual care team
- Optimise secondary prevention
- Treat to target
 - LDL < 1.8mmol/L
 - BP < 130/80
 - HbA1C < 7
- Health behaviour change
- Sign posting to local programmes
- Monitor outcomes and report generation
- Linked Data



STEMI Tactical Map PCI



- KEY:**
- Road
 - Fixed Wing
 - Rotor Wing
 - Boat
 - Non-THS Site
 - THS Facility
 - THS Office Hours Thrombolysis
 - THS 24/7 Thrombolysis Site
 - PCI Centre
 - Pending Thrombolysis Site

- ASSUMPTIONS:**
- Daylight hours (hence able to fly to all locations across the state)
 - Weather permits flying
 - Plane on the ground in Launceston
 - Rotor Wing activation <20mins
 - No resourcing issues (able to road versus fly; specifically regarding NWRH to LGH)
 - Cath lab availability at nearest PCI facility

- PLEASE NOTE:**
- Roseberry would require road transfer to airport at Queenstown (50 mins) or Strahan (60 mins)

Consider Rotor Wing in the shaded zone



Hybrid Model :

- Virtual Care
- Use of local THS facilities
- 3 groups in an integrated model
- Hub and spoke model
- Online education
- Online exercise physiology
- Digital therapeutics platform





- Palpitations
- Postoperative Care of Cardiac Patients
- Cardiology Assessment
- Cardiology Advice
- Cardiac Rehabilitation**
- Dermatology
- Diabetes
- Diving and Hyperbaric Medicine
- Endocrinology
- Gastroenterology
- General Medicine
- Genetics
- Haematology
- Immunology
- Infectious Diseases
- Intellectual Disability



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Update- New personalised accounts

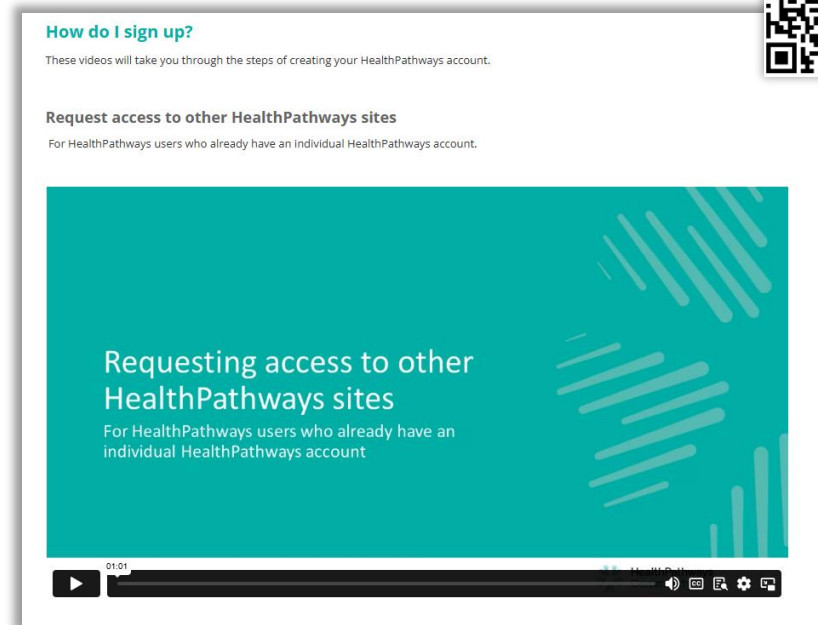
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HealthPathways@primaryhealthtas.com.au

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Scan to learn more

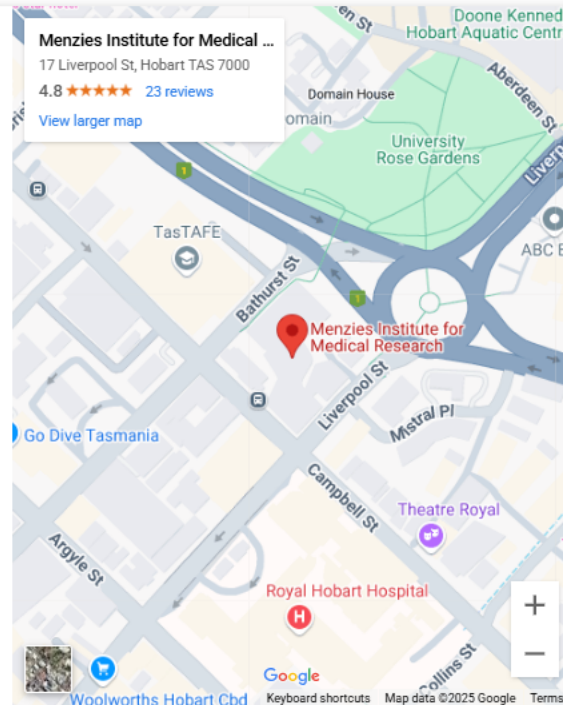


Upcoming events

Deprescribing Antidepressants: An evening with Dr Mark Horowitz

Topic:	Antidepressant withdrawal effects and safe deprescribing.
Facilitated by:	Primary Health Tasmania
Speaker:	Dr. Mark Horowitz – MBBS PhD, lead author of the Maudsley Deprescribing Guidelines Dr Anna Seth – GP clinical editor, Tasmanian HealthPathways Angus Thompson – Pharmacist Consultant/Clinical editor, Tasmanian HealthPathways
Date and time:	Monday 17 March 2025 Face to Face: 6:00pm for a 6:30pm start (light refreshments provided) to 8:00pm. Online: 6:30 pm to 8:00pm
Location:	Face to Face: Menzies Institute for Medical Research, UTAS or Online: Livestream via Zoom
Audience:	All health professionals involved in the care of patients taking antidepressants working in Tasmania

REGISTER FOR IN-PERSON ATTENDANCE



Cardiology Series*:

- Session 1: Wednesday, 12th March - **Contemporary Vision for Cardiac Rehab**
- Session 2: Wednesday, 7th May - **Palpitations**
- Session 3: Wednesday, 11th June - **SOB -> HF**
- Session 4: Wednesday, 23rd July - **Chest Pain**
- Session 5: Wednesday, 3rd September - **Syncope**
- Session 6: Wednesday, 15th October – **Final session**

*Sessions 2-6 are not yet published on the website. Please subscribe to the Primary Health Update to be notified when they are available

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Thank you



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