



## Faculty

- Stephen Huang, Sydney
- Dr Markus Renner
- Dr Chris Walker
- Other senior trainees

## Organizer



[https:// niccer.asn.au](https://niccer.asn.au)

## Contact:

### Local organiser

Dr Markus Renner  
Dunedin Hospital  
NZ  
[mare.dunedin@gmail.com](mailto:mare.dunedin@gmail.com)

### Conference secretary

Ms Lisa Deaman  
[secretary@niccer.asn.au](mailto:secretary@niccer.asn.au)

## Registration:

<https:// niccer.asn.au>

# PIE

## Practical Intermediate Echocardiography for Critical Care

## Dunedin, NZ

**Date:** 12 – 13 October 2024  
**Where:** Hunter Centre, Dunedin, NZ  
**Cost:** AUD1,600 (early bird, before 12 September 2024)  
AUD1,800 (on or after 12 September 2024)

### Introduction

PIE is a new transthoracic echocardiography (TTE) course targeting at more experienced or advanced practitioners. This course is particularly useful to:

- practitioners who are **already performing basic level echo** but would like to **advance their skills and apply Doppler echo** in their studies
- practitioners who are already **performing Doppler echo** but want to **perfect their Doppler skills** or want to learn more on **principles of assessments in Doppler measurements**

The course objective is to equip practitioners with the skills to properly assess cardiac function and haemodynamics in patients who are critically ill. There is a well balance of didactic lectures and hands-on practice in this course, and aims to fill the “gap” between basic and advanced critical care echo.

### Course content

The course cover basic principles and clinical topics, with the emphasis on Doppler assessment. Topics\* may include:

- Basics principles:
  - Revisiting anatomy and views in TTE: probe navigation
  - Principles of Doppler
  - Cardiac output measurement
  - Pulmonary artery pressure estimation
  - Mean pressure gradient and pressure half-time
  - LV filling pressures inference
- Clinical topics or cases:
  - Shock
  - Shortness of breath
  - Cardiac arrest
  - Valvular assessments for critical care

\*Note that not all topics are offered due to time limitation. Suitable topics will be decided by the local organizer in discussion with the PIE team.

### Who should attend?

To maximize the learning process, we recommend participants

- should have **attended a basic level echo course**, e.g. RACEplus, and
- should have **performed at least 30 basic level TTE studies**.

(Note: we do not ask participants to submit any proofs)

### Reference material (optional)

McLean, Huang & Hilton (eds) *Oxford Textbook of Advanced Critical Care Echocardiography*, Oxford University Press, Oxford.



## Faculty

- Stephen Huang, Sydney
- Dr Markus Renner
- Dr Chris Walker
- Other senior trainees

## Organizer



[https:// niccer.asn.au](https://niccer.asn.au)

## Contact:

### Local organiser

Dr Markus Renner  
Dunedin Hospital  
NZ  
[mare.dunedin@gmail.com](mailto:mare.dunedin@gmail.com)

### Conference secretary

Ms Lisa Deaman  
[secretary@niccer.asn.au](mailto:secretary@niccer.asn.au)

## Registration:

<https:// niccer.asn.au>

# PIE

**Practical Intermediate Echocardiography  
for Critical Care**

**Dunedin, NZ**

**Tentative program**

## Day 1

- 0845 Welcome and introduction  
0900 Probe navigation in TTE views  
0930 Hands-on warm-up: Probe navigation in TTE views  
**1030 Morning break**  
1050 Lectures:  
    *Doppler principles*  
    *Cardiac output measurement*  
1145 Hands-on: Colour Doppler and CO measurements  
**1245 Lunch**  
1330 Lectures:  
    *Pulmonary artery pressure estimation*  
    *Tissue Doppler principles*  
1415 Hands-on: PAP estimation and tissue Doppler  
**1515 Afternoon break**  
1530 Mean PG and pressure half-time  
1600 Hands-on: mean PG and PHT  
1645 Q & A  
1700 Finish

## Day 2

- 0900 Pitfalls in haemodynamic measurements  
0940 Hands-on:  
    Revisiting CO, PASP and tissue Doppler  
**1030 Morning break**  
1045 Continuity equation and applications  
    - *aortic stenosis: effective orifice area*  
    - *regurgitation volume / fraction*  
    - *Septal defects: Qp:Qs*  
1115 Hands-on: Continuity equation  
**1215 Lunch**  
1300 Assessing LV filling pressures  
1330 Hands-on: LV filling pressures  
    - *E/A, e', E/e', TR velocity or PASP, LAV*  
1430 Dynamic outflow obstruction  
**1500 Afternoon break**  
1520 Special topics / Case studies  
1645 Q&A  
1700 Finish