To whom this may concern,

You have been nominated as the principal clinical supervisor for a student who has applied for entry into the Graduate Diploma in Cardiac Ultrasound (CS61).

As the Principal Clinical Supervisor, you will be required to act as a mentor for the student and to fulfil the roles and responsibilities of a clinical supervisor as outlined in subsequent pages. Other individuals (if appropriately qualified – see below) may also act as Assistant Clinical Supervisors; for example, when the Principal Supervisor is away from the clinical practice or when the student visits alternate clinical sites.

If you feel that you are unable to fulfil these responsibilities, you may pass this on to another suitably qualified individual within your practice. Please note that all clinical supervisors must be either:

- An Accredited Medical Sonographer (Cardiac) as recognised by the ASAR with a minimum of 2 years post-graduate experience or
- A Cardiologist with extensive experience and interest in cardiac ultrasound or
- A Radiologist or Specialist Physician with extensive experience, and demonstrated continuing education, in the field of cardiac ultrasound.

Please complete the enclosed Principal Clinical Supervisors form at your earliest convenience and ask the student to return the form with their completed application for admission to QUT. If there are any questions, in relation to this, please do not hesitate to contact me directly.

Yours sincerely,

Tony Forshaw

Course Coordinator – CS61 Grad Dip in Cardiac Ultrasound
Phone: (07) 3138 2588 (message)
Mobile: 0407 735 360
Email: a.forshaw@qut.edu.au (preferred contact)
Postal: QUT, Faculty of Health - Medical Radiation Sciences, GP Campus, GPO Box 2434, BRISBANE Q 4001
Requirements of Clinical Departments and Clinical Supervisors

1. Criteria for Clinical Departments:

   - **Equipment:**
     - **Mandatory:** ultrasound equipment must have the following:
       - Phased array transducer (s) with multifrequency capability
       - Non-imaging continuous-wave Doppler transducer
       - High, 2D image resolution capability
       - M-mode
       - Spectral and colour flow Doppler capability
       - Harmonic imaging
       - Doppler tissue imaging capability
       - ECG monitoring capability
     - **Desirable:** it is desirable that ultrasound equipment have the following:
       - Respirometer monitoring capability
     - **Additional:** Students are required to submit their case studies as digital studies. Therefore, a mechanism for copying digital studies (DICOM format) is also necessary.

   - **Workload:**
     - **Mandatory:** For students to be able to meet the clinical requirements of this program (conducted over a 2-year time frame), students are required to be working in clinical cardiac ultrasound for about 3 days per week (38hrs per fortnight) (minus standard leave privileges) throughout the duration of the course. Students are required to perform (independently) a minimum of 20 echo examinations per week. **Entry into the course is conditional on this requirement.**
     - In order for the student to satisfactorily complete the Clinical Attachment units, they must achieve a satisfactory level of clinical competence; hence, clinical experience of the student MUST be hands-on and not just observation.
     - **Desirable:** To allow continuity of experience, it is desirable that the student be working in one department for the majority of clinical experience.
     - It is also desirable that the student is working in a practice which is exposed to a wide variety of cardiac disease processes
     - **Specialised Echocardiographic Techniques:** Students are required to observe or perform a specified number of specialised echocardiographic examinations: congenital heart disease, transoesophageal echocardiography and stress echocardiography. Students who work in a practice that does not perform some or all of these specialised examinations, will be required to visit an institution (for example, cardiac tertiary referral centers, cardiology practices, etc) where the student can observe these examinations. Students will be required to organise visits to these institutions themselves.
2. **Criteria for Clinical Supervisors:**

- The clinical supervisor must be either:
  - An Accredited Medical Sonographer (Cardiac) as recognized by the ASAR with a minimum of 2 years post-graduate experience **or**
  - A Cardiologist with extensive experience and interest in cardiac ultrasound **or**
  - A Radiologist or Specialist Physician with extensive experience, and demonstrated continuing education, in the field of cardiac ultrasound

- The primary role of the clinical supervisor is to act as a mentor of the student; hence, it is crucial that the supervisor be on-site for the majority of the student’s clinical experience.

- For students in remote areas, it is recognised that on-site supervision is not always possible. In this circumstance, the clinical supervisor must be able to be easily contacted to discuss the examination with the student. In addition, these students are encouraged to spend 1-2 weeks per semester at the institution where the clinical supervisor is on-site in order to receive one-on-one, face-to-face feedback and support.

- The roles and responsibilities of the clinical supervisor include:
  - To ensure that the student has adequate clinical experience and exposure to a variety of clinical cases
  - To ensure that the student maintains an adequate standard of scanning *
  - To be available to assist the student when confronted with technical difficulties
  - To be available to instruct the student regarding more complex haemodynamic calculations
  - To provide feedback regarding the completeness of the examination, accuracy of measurements and calculations, and the diagnostic value of the examination
  - To encourage and help develop students’ communications skills, both written and verbal
  - To ensure that the student is aware of the patients’ needs and provides appropriate patient care
  - To ensure that the student is aware of, and practices, universal infection control practices
  - The ability to verify records presented in the students’ Clinical Procedures Record Book
  - Providing written assessments of the students’ performance*

* Students are required to perform various echo measurements as part of this course. In particular, students may be required to perform some measurements that may not be performed routinely at your institution (for example, biplane left atrial volumes, Simpson’s ejection fraction, DTI of the septal and medial annulus, RV measurements). As the clinical supervisor, you will be required to assess the performance accuracy of these measurements. For further information about these measurements and techniques, please refer to the following ASE articles which can be downloaded for free from the following web sites:

- [http://www.asefiles.org/ChamberQuantification.pdf](http://www.asefiles.org/ChamberQuantification.pdf)
Clinical Supervisor Form - Please complete this form and include in the application for entry into the CS61 – Grad Dip Cardiac Ultrasound

Student’s Name: ........................................................................................................

Principal Clinical Supervisor Details:
Name: ...........................................................................................................................
Email: ...........................................................................................................................
Relevant Qualifications: ..............................................................................................
If principle clinical supervisor is a sonographer, please provide
  • ASAR Registry No.: ................................................
  • Year cardiac ultrasound qualification obtained: .........................

Continuing Professional Educational Programs/Conferences relating to cardiac ultrasound attended in the past 2 years (including date(s) of attendance):
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Assistant Clinical Supervisor Details:
Name: ...........................................................................................................................
Email: ...........................................................................................................................
Relevant Qualifications: ..............................................................................................
If assistant clinical supervisor is a sonographer, please provide
  • ASAR Registry No. : ................................................
  • Year cardiac ultrasound qualification obtained: ..............................

Continuing Professional Educational Programs/Conferences relating to cardiac ultrasound attended past 2 years (including date(s) of attendance):
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Name and Address of Clinical Practice:

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Postcode code: …………..

Ultrasound Equipment:

Ultrasound Machine Make: ……………………………… Model: ……………………

This ultrasound equipment must include the following capabilities (please tick appropriate boxes):

<table>
<thead>
<tr>
<th>Multifrequency Phased array transducers</th>
<th>Harmonic imaging</th>
<th>Doppler tissue imaging</th>
<th>Dedicated non-imaging CW Doppler transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECG monitoring</td>
<td>Digital storage</td>
<td>Ability to export studies in DICOM format</td>
<td></td>
</tr>
</tbody>
</table>

Principal Clinical Supervisor Roles and Responsibilities: (Please tick appropriate boxes to confirm your understanding of your roles and responsibilities to students undertaking this course)

I have read the roles and responsibilities of the Clinical Supervisor and I am willing to comply with these roles and responsibilities.

I hereby verify that the student has completed a minimum of 450 hours hands-on experience in cardiac ultrasound.

Every reasonable attempt will be made to ensure that the student is rostered in cardiac ultrasound for a minimum of 3 days per week (minus standard leave privileges) so that they can complete a minimum of 20 echo studies per week. (NB: entry into the course is conditional on this requirement being met).

I agree to allow the potential use of de-identified images submitted by students for their assignments to be used for the express purpose of teaching within QUT and at other educational echocardiographic meetings. (NB: does not include pathological images, only images related to measurements and image optimisation).

Principal Supervisor's Signature:  ___________________________________

Date:  ___________________________________

Assistant Supervisor's Signature:  ___________________________________

Date:  ___________________________________