



Bond University Medical Program

Cardiology

Clinical Placement

Student/Clinician Guide

Introduction

The capstone, elective, flexible and selective placements provide students' a choice of interest area, or specialty placement, to gain additional clinical experience on top of specified clinical curriculum placements.

The learning priorities for all clinical specialties are to gain insight and understanding of the most common presentations and conditions encountered. It is anticipated that all students will have opportunities to enhance their skills in history taking and clinical examination. Students should also be encouraged to translate the information from patient interactions into commonly used formats by interns, such as *ISBAR (Introduction, Situation, Background, Assessment, Recommendation)*. Additional specific procedural skills development is welcomed.

Timetable and Contacts

Students are expected to be present on a daily basis during their placement. If students are unable to attend for any reason, they are required to advise the clinician, hospital co-ordinator (where available) and the Placements Team at Bond University: Med-placements@bond.edu.au

Cardiology Placement in General

The basis of the Cardiology Placement is for students to see patients whose clinical problems relate to the broad array of cardiac and cardiovascular problems and to experience first-hand the daily routine and practice of medicine by a cardiologist and the hospital team. Students are expected to learn about the assessment and management of cardiology patients in the clinical setting.

The knowledge explosion and rapid advances in medicine generally, and cardiology in particular, means that it is impossible to cover everything in one single placement. However, knowledge of the common cardiac presentations and conditions will provide a firm foundation for students continuing professional development.

Goals

The goals for the Cardiology Placement are:

- To provide students with learning experiences associated with the clinical care of cardiac patients
- For students to hone their history taking and examination skills and use clinical reasoning to form diagnoses and differential diagnoses
- For students to learn about and to become comfortable discussing clinical management of cardiac patients
- For students to develop clinical knowledge and understanding of the common conditions in Cardiology
- To provide students with a real-life clinical working environment and opportunity to work with a clinical team.

Learning Outcomes

Students to be able to demonstrate:

- the ability to take a complex cardiology focused medical history
- a cardiovascular focused physical examination
- correct appraisal and assessment of medical symptoms and signs
- Recognition of serious cardiac disease requiring urgent management/intervention
- Application of knowledge about the pharmacological and clinical management of cardiology patients.
- Rational use of investigations and justify their appropriateness (support or refute a diagnosis, cost-effectiveness, influence on management as well as the associated risks)
- Understanding and interpretation of common cardiac diagnostic tests, imaging, and investigations (eg. ECG)
- Knowledge and understanding of the relevant anatomical, biochemical, physiological and pathological processes underlying common cardiac conditions
- Clinical reasoning to formulate differential diagnoses and management plans
- Knowledge and understanding of common drugs used in cardiology.

Clinical Supervision and Assessment

Students have a variety of workplace-based assessments (WBA) to successfully complete during this Clinical Placement. All WBA are completed in Osler ePortfolio, a cloud-based mobile assessment technology, giving students, supervisors and faculty immediate access to WBA feedback and evaluation. WBA are not only the students' richest source of personal feedback on performance but are also evidence of their clinical skills development and safety to practice.

At the end of each clinical placement, the Board of Examiners (BOE) will review all required WBA to decide whether the student has passed the Clinical Placement. If all WBA are not submitted by the due date, the BOE may not have sufficient evidence to make an Ungraded Pass decision and the student progression in the Medical Program may be delayed.

All WBA are to be submitted in Osler by 8 am Monday following the end of each Clinical Placement

In Clinical Placement 5, ITA can be completed in W6 due to the OSCE being held in W7
In the final Clinical Placement 12 (Subject MEDI72-503) all WBA are due end of W5

1. For assistance with Osler contact: osler@bond.edu.au
2. For assistance with WBA contact: Med-assessment@bond.edu.au
3. For full details of all WBA requirements, read the WBA booklet located on iLearn.

The In-Training Assessment (ITA)

This workplace-based assessment tool provides the opportunity for the clinical supervisor to comment the student global performance on that placement to date. The ITA is a summary evaluation of whether students have met the requirements of that placement at the time of completion for:

- Clinical knowledge
- Procedural skills
- Clinical History taking and physical examination skills
- Communication
 - Communication with children and families
 - Appropriate clinical handover using ISBAR
- Personal and professional behaviour
- Attendance on clinical placement

The ITA can be completed by the supervising Consultant or their delegate registrar, preferably after seeking opinion from the team about the student performance. The clinician who spends the most time observing the student, is the best person to complete this task. In ICU, nursing staff can complete the ITA if they are consistently observing the student in practice.

Due Wk7: End-Placement ITA is completed by the assigned supervising Consultant or their delegate registrar, after seeking opinion from the clinical team about the student performance throughout the placement as to whether the student is performing 'at expected level'. Students can fail for not meeting attendance requirements on Clinical Placement – if they are not present then they are not spending time with patients sufficient to demonstrate competency.

Due WK6 : Mini-CEX

Students are encouraged to participate in active learning by interacting with patients by conducting a history or physical examination and then engage in discussions with clinician supervisors, known as Mini-Clinical Examinations (Mini-CEX). During the clinical placement, students will be supervised by their consultant supervisor or their delegate which includes ICU nurses and a range of clinicians such as those in specialist training pathways in the medical team, Senior House Officer or higher. PGY 1 and 2 are not permitted to complete Mini-CEX.

Students are required to complete and evidence **four (4) Mini-CEX in the form of 4 x Patient Management Plans**.

- In this situation, students take the patient history, conduct the examination, review their investigations – then integrate this information and share their recommended patient management plan with a clinical team member
- It may be possible to do this task one-on-one or in a group setting such as ward rounds, clinics, operating theatre, and patient-management meetings

Patient Management plans are an observed Mini-CEX that requires the student to take a history, conduct a physical examination and review investigations. The student then integrates these skills and has a verbal discussion with the observing supervisor on next best steps in patient management. This integrated clinical task reflects the higher level of clinical reasoning and synthesis required as they approach internship. Feedback provided in the WBA should align to that given to students at the time of the interaction. The Global score given relates to the students' ability to conduct this clinical skill relevant to their current level of learning:

- **Level 1: Unable to complete the task and requires direct instruction and intervention from supervisor**
- **Level 2: Performs the task with proactive supervisor input and intervention**
- **Level 3: Performs the task competently with minimal supervisor input and intervention**
- **Level 4: Performs the task competently and independently with supervision nearby if required**

Outcomes:

- **Level 1 (fail) or 2 (Borderline) require the student to Repeat the skill or conduct another Mini-CEX until level 3 is reached in a minimum of four (4) by end of the clinical placement.**
- **Level 3 (Student level) and 4 (intern level) are considered a Pass**

Ward Call

Students are required to complete in their final year, one (1) Ward Call by graduation. Students will join the clinical team in attending to a rapidly deteriorating/critically unwell patient. Students will observe the team in action and can offer to assist with clinical tasks which are within their scope of practice such as:

1. Write Notes about Clinical Assessment- doing an SBAR of the clinical interaction
2. Assist in the delivery of any basic airway care/recovery position/medication or fluid changes by nursing staff
3. Assist with performing ECG/monitoring of saturations/BP that might be done as part of the assessment- emphasising the clinical relevance of these observation to the given interaction
4. Conduct any procedures that might be done like IV, blood tests taken, urine tests
5. Look and detect and calculation of the clinical signs of deterioration that might indicate need for ICU/Reg review such as GCS and seizure type
6. Seek out opportunities to be involved in these types of clinical assessment
 - a. Fall in an elderly patient
 - b. Assessing Chest pain on the ward
 - c. Respiratory Assessment in the post-op patient

Procedural Skills and Clinical Tasks

Bond Medical Students are required to complete the following Procedural Skills and Clinical Tasks on patients by the completion of their Phase 2 to graduate. Ten skills are to be completed on patients under guided supervision whilst two clinical tasks and three theory modules support their skills development. A wide range of health professionals can evaluate their skills competency, including doctors, nurses, allied health, and hospital technicians.

#	Required Procedural Skills
1	In-dwelling Catheter insertion
2	Intravenous Cannulation
3	Suturing – basic wound closure
4	Intramuscular injection
5	Subcutaneous injection
6	Electrocardiograph acquisition
7	Venesection
8	Blood Culture Sampling
9	Sterile handwash, gown, and glove
10	Airway Management
Required Theory Modules	
11	Personal Protective Equipment
12	Assessment of the ICU patient
13	Pulse Oximetry
Required Clinical Tasks	
14	Discharge Summary completed in EMR
15	Ward Call

Students choose the location and timing of when they are ready to conduct this skill for assessment.

They are encouraged to conduct the skill for learning multiple times prior to being assessed for evidence of their competency

Students are required to complete all 15 clinical tasks prior to graduation

Evaluation of student procedural skills performance is based on an Entrustability Rating Scale:

- Trust Level 1. Requires physician assistance / direct instruction (Repeat skill)
- Trust Level 2. Requires significant supervisor input (*Repeat skill)
- Trust Level 3. Performs independently but requires direct supervision (Pass – medical student level)
- Trust Level 4. Safe to perform independently (supervision immediately available) (Pass – intern level)

In addition, to WBA, MD students will conduct the following other assessments:

Students will sit an OSCE during Wk7 of Clinical Placement 5 as a check on clinical skills competency
 Students will also conduct five (5) written knowledge Open Book Progress Tests, one at the end of each semester to promote continuous development in their clinical knowledge

MD Program Outcomes AKA YEAR 4 and 5
MEDI71-401, 402 and 403
Core Clinical Practice A, B and C
MEDI72-501, 502 and 503
Extended Clinical Practice and Research, A, B and C

The Australian Medical Council's Graduate Outcome Statements are organised into four domains. Within this subject, the framework mapped to the learning outcomes are Science and Scholarship Domain (learning outcomes 1-3), Clinical Practice Domain (learning outcomes 4-11), Health and Society Domain (learning outcomes 12-15) and Professionalism and Leadership Domain (learning outcomes 16-21).

1. Science and Scholarship: The medical graduate as scientist and scholar (SS)
2. Clinical Practice: The medical graduate as practitioner (CP)
3. Health and Society: The medical graduate as a health advocate (HS)
4. Professionalism and Leadership: The medical graduate as a professional and leader (PL)

Program LOs 2024		Description On successful completion of this program the learner will be able to:	AMC 2012	AMC standards 2023
01	Y5SS01	Apply current medical and scientific knowledge to individual patients, populations and health systems.	1.1, 1.2, 1.3, 1.4	4.1, 4.2, 4.3, 4.4, CP 1.13, 1.24
02	Y5SS02	Apply evidence-based and environmentally sustainable healthcare practices in patient care and research methodology.	1.5, 1.6, 2.7	4.2, 4.3, 4.5, 4.6, CP 1.15, 1.16
03	Y5SS03	Apply project management and/or communication skills to complete an evidence based and professionally focussed project including its dissemination.	1.1, 1.5, 1.6, 3.3, 4.9	4.5, 4.6, HS 3.6,
04	Y5CP01	Demonstrate cognitive, technical and interpretive skills in undertaking an accurate, detailed system-focussed history from a range of patients within a variety of clinical settings.	2.1, 2.2	1.3, 1.2, 1.4, 1.6, 1.8,
05	Y5CP02	Perform an accurate and complete physical examination on any body system including a mental state examination.	2.3	1.9
06	Y5CP03	Use knowledge of common conditions, the patient history and physical examination findings, and clinical data, to undertake clinical reasoning and formulate probable and differential diagnoses.	2.2, 2.3, 2.4, 2.7, 2.8, 2.10	1.10, 1.13, 1.16, 1.22,
07	Y5CP04	Recognise and assess deteriorating and critically unwell patients who require immediate care and perform common emergency and life support procedures.	2.12	1.20, 1.21, 1.23
08	Y5CP05	Safely perform a range of common procedures.	2.6, 2.11, 2.14	1.1, 1.5, 1.6, 1.7, 1.11, 1.12, 1.14, 1.17, 1.18
09	Y5CP06	Safely prescribe by applying the principles of "quality use of medicines" in an environmentally sustainable way.	2.7, 2.11	1.11, 1.12, 1.16, 1.17, 1.18,
10	Y5CP07	Select and justify common investigations, with regard to the pathological basis of disease, utility, safety, cost-effectiveness, and sustainability, and interpret their results.	2.5, 3.7	1.11, 1.12, 1.15, 1.23, HS 3.7, 3.8 SS 4.1
11	Y5CP08	Formulate an initial management plan in consultation with patients, family and carers across a variety of clinical settings with consideration of psychosocial, environmental and cultural aspects that may influence management.	2.1, 2.7, 2.9, 2.13, 2.14, 2.15, 3.2, 3.4	1.1, 1.5, 1.6, 1.7, 1.11, 1.12, 1.16, 1.19, 1.23, 1.24, HS 3.2, 3.3

12	Y5HS01	Apply evidence from behavioural science and population health research, integrate prevention, early detection, health maintenance and chronic disease management into clinical practice.	1.6, 2.10, 3.5	3.7, 3.8, CP1.4, 1.7, 1.22
13	Y5HS02	Recognise and critically reflect on the diversity of populations regarding health issues applicable to the relevant unique historical, social and cultural contexts in the clinical and community settings including First Nations peoples.	3.1, 3.2, 3.4, 3.5, 3.8, 3.9	3.10, 3.2, 3.3, 3.8, 3.5, 3.12, CP 1.7
14	Y5HS03	Recognise and understand the complex interactions between the healthcare systems and environment, as well as the doctor and patient, whilst reflecting on power and privilege, to understand the role of these to ensure a culturally responsive and safe working context.	2.1, 2.8, 3.4, 3.6, 3.7, 4.5	3.3, 3.9, 3.1, CP 1.2, 1.5, 1.11,
15	Y5HS04	Communicate successfully in all roles including health advocacy, education, assessment, appraisal and with the First Nations peoples.	2.1, 3.3, 3.4, 3.8, 4.9	3.6, 3.3, 3.5, CP 1.3, 1.4, 1.6,
16	Y5PL01	Contribute to teams providing care to patients according to “Good Medical Practice: A Code of Conduct for Doctors in Australia” and “Good Medical Practice: A Guide for Doctors in New Zealand”	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10	2.3, 2.5, 2.6, 2.8, 2.9, 2.11, 2.12, 2.13, 2.16, 2.17, 2.18
17	Y5PL02	Explain and apply the principles and concepts of medical ethics including physician virtue and the ‘four principles’ of autonomy, beneficence, non-maleficence and justice in the context of team-based patient care.	3.6, 4.1, 4.2, 4.3, 4.4, 4.6, 4.10	2.1, 2.2, 2.3, 2.4, 2.9, 2.10, 2.15, 2.18 HS 3.9,
18	Y5PL03	Apply the legal responsibilities of a medical practitioner across a range of professional and personal contexts in the practice of team-based patient-care.	2.15, 4.1, 4.2, 4.3, 4.10	2.2, 2.15, 2.18, CP 1.19
19	Y5PL04	Evaluate the performance of self and others as self-regulated and effective members of a diverse healthcare team in the management of a case load, respecting the roles of all healthcare professionals within the clinical setting and community settings, demonstrating professional foundation and essential skills.	3.1, 4.1, 4.2, 4.6, 4.7, 4.8, 4.9	2.2, 2.5, 2.3, 2.6, 2.9, 2.11, 2.12, 2.13, 2.15, CP 1.5, 1.6, HS 3.10,
20	Y5PL05	Demonstrate, and role model for junior medical students, skills to support the planned and active development of a career.	4.1, 4.2, 4.3, 4.8, 4.9	2.5, 2.2, 2.6, 2.11, 2.12, 2.13, 2.15, 2.16,
21	Y5PL06	Demonstrate, and role model for junior medical students, the active management of self-care in a clinical environment as part of a clinical team managing patients.	4.1, 4.2, 4.5, 4.6, 4.7, 4.9	2.2, 2.3, 2.5, 2.7, 2.9, 2.13, 2.15, 2.16