2022 Student Nurses

Te Whatu Ora
Health New Zealand

Wellington Regional Heart and Lung Unit

Te Ratonga Whatumanawa me te Pukapuka ā Rohe

Ward 6 South

The Regional Heart and Lung Unit Student Orientation Booklet

Contents

The Heart and Lung Unit (HLU)

Level 6 South, Wellington Regional Hospital

The HLU is a combined ward of cardiothoracic (surgical) and cardiology (medical) services. Nurses in the HLU work across both specialties. It has 36-beds, split into three pods: D, E and F.

Cardiothoracic services

Cardiothoracic patients present with conditions, or trauma, of the organs in their chest cavity which may be treated, or managed, with surgical procedures. These mainly include conditions of the heart or lung, such as coronary artery disease, valvular disease, operable lung or heart masses (often carcinomic), or problems with the pleural space. See the section "Common presentations to the HLU" for a more detailed list. The cardiothoracic surgical team includes cardiothoracic surgical consultants, surgical registrars, and two house officers.

Cardiology

Cardiology diagnoses, manages, and treats a wide range of cardiac conditions that effect the heart's ability to function. This includes conditions such as arrhythmias, coronary artery disease, and heart failure. Cardiology provides a range of services including cardiac catheterization, electrophysiology, and device implantation (pacemakers and internal cardiac defibrillators), as well as medical management (pharmaceuticals and lifestyle modification). See the section "Common presentations to the HLU" for a clearer list of the cardiology services. The cardiologists work with the cardiology registrars and two house officers (one in E pod, and one covering F and D pod).

The ward layout…

Cardiothoracic services are mainly based in D Pod, which includes a 6 bedded Step-Down Unit (SDU) for close monitoring of post-operative patients. E Pod is mainly cardiology. There are 8 acute cardiology beds in E Pod, all with bedside monitoring. F Pod generally has lower acuity ward level patients from both cardiothoracic and cardiology specialties. Portable cardiac monitoring devices (telemetry) are used across the ward.

…and your student clinical placement

During a 3-4-week placement you will be assigned to one of D, E or F pods for the whole placement. On a 9-week placement you will have a three week rotation in each pod. You can find the pod you are assigned to on your roster.

Servicing the region

As well as Wellington, the HLU provides regional care from Hawkes Bay and Whanganui in the North to Nelson and Marlborough in the South. Many of our patients are transferred from, and back to, other hospitals. Others travel to Wellington as outpatients for elective procedures, so they and their support people have travelled away from home to receive care.

Many admissions are acute and occur at any time of the day or night, seven days a week, from the Emergency Department or regional hospitals. We have a very high turnover with 10 to 15 admissions and discharges on a normal day. When managing your workload always plan ahead and be prepared for rapid changes.

The multidisciplinary team (MDT)

There are Clinical Nurse Specialists: in the areas of heart failure, rhythm and cardiac devices, cardiac rehabilitation, genetic disorders, wound care, and the pain management services (APMS).

Other groups involved in patient care on the ward include: 6 South Health Care Assistants (HCAs), social work, occupational therapists, physiotherapists, whanau care services, Pacific health services, Acute Health of Older persons (AHOP), ECHO technicians, and phlebotomists (not a complete list!).

Allied services

Many other people are involved in the smooth daily operation of the ward: the ward administrators (receptionists), the ward and hospital cleaners, orderlies, and foodservice personnel.

Welcome!!
We are looking forward to working with you

Contacts

Heart and Lung Unit	Main Contact	Email for Main Contact	Phone number
DEU Clinical Liaison Nurses (CLN)	Nicole Bewley Tyran Shaw-Chesterman Caleb Warnes Bea Wrenn	To contact any CLN: RES-6southdeu@ccdhb.org.nz	
Clinical Nurse Educators	Donna Bosch Tom Donoghue	Donna.bosch@ccdhb.org.nz Tom.donoghue@ccdhb.org.nz	**Ext 80659** **Ex 80661**
Clinical Nurse Manager	Gemma Prescott-Whittaker	GemmaJaign.Prescott@ccdhb.org.nz	
Associate Clinical Nurse Manager (ACNMs) Or RN Coordinator	Olly Va'alepu Sarah Leech Gen Foley		**Ext 80672** **Direct dial 021 504 746**

Please use ACNM/RN Coordinator number to call in sick if necessary

If you have any concerns or questions while on 6 South, please do not hesitate to contact your designated CLN. If your designated CLN is not available, and you need support, you can contact the Clinical Nurse Educators, or the ACNMs, or the nurse coordinator for that shift, or the Charge Nurse.

Dedicated Educational Unit

The HLU is a Dedicated Education Unit (DEU). The DEU is a model of clinical teaching and learning. In Wellington it is a partnership between Tertiary Education Providers (TEPs) and Capital and Coast District Health Board. DEU's are dedicated to supporting nursing students on clinical placement, encouraging incidental and intentional learning modes, and peer teaching. The DEU is based on an Australian model and replaces the Preceptorship model to focus on student learning and integration of the curriculum with clinical practice.

Preceptor

Each shift you will work alongside a Registered Nurse (Preceptor) who will support your practice and learning during your placement. Over the placement you will work with a number of different preceptors. You will work with your preceptors in a shared care model. This means you will be working towards allocation of your own workload and be supported by your preceptors during your development. It is **your** responsibility to ensure the RN you are working with is aware of your objectives for the day/week. Please provide any paperwork requiring their attention early in the shift. We will prioritise you working in the same place each day, and with the same nurse if possible, but the acuity of care and the rosters make this challenging. Allocation is done at handover, and we try to give you the best experience/preceptor at the time.

Clinical Liaison Nurse (CLN)

Nicole, Ty, Caleb, and Bea are the DEU Clinical Liaison Nurses for 6 South. One of them will be assigned to your clinical placement as your main clinical contact. They will provide you with some structured clinical learning during your clinical placement. They have an excellent understanding of your program and will work alongside your academic tutors (ALNs), your preceptors, and yourself, to support your learning needs. They will complete your formative and/or summative assessments during your placement. If this is your final placement (9 week) your CLN will compete all assessments and references relating to your ACE application.

Expectations of the Student Nurse in HLU

The shifts in the HLU are:

Morning	:	0700hrs to 1530hrs
Afternoon	:	1430hrs to 2300hrs
Night	:	2245hrs to 0715hrs

We have a few expectations of student nurses working in the HLU:

- It is expected that you arrive on time for your shift. If you are going to be late, or you are unwell and cannot come, call the unit on **021 504 746**
- You must complete the full shift that you are allocated to work – if you are unable to do so please discuss this with your nurse, preceptor, or nurse educator. A lot of learning occurs at quiet times in the unit. Also, handover at the end of shift is part of being a nurse.
- It is important that you set objectives for yourself and share these with your preceptors.
- If you are not achieving your objectives, please see your CLN or the Nurse Educators (sooner is better, but any time is better than not at all!)
- Due to infection control a clean uniform must be worn, long hair must be tied back, hand and wrist jewelry removed, and cardigans must not be worn when working on the floor.
- Please ensure you provide your CLN with all documentation on time or they may not be able to complete your assessment.
- **The handover sheet contains confidential information and must be disposed of in one of the shredding bins prior to leaving the ward.**
- Please read the section in this booklet on safety in the HLU.

Roster

Your roster will be sent to your Tertiary Education Provider (TEP) who will forward it to you. Look next to your name to see the Pod you have been assigned to. Remember, if you are on a three or four week placement you will be assigned to one of D, E or F pod for the whole placement. If you are on a 9-week placement, you will be rotated through each of the pods every three weeks. If you have any questions about your clinical placement, please email the Clinical Liaison Nurses.

Swipe Cards

Your tertiary education provider should organize a swipe card for your placement, and this should be given to you before your first shift. See a Nurse Educator or your ALN if you have a problem with access.

Safety in the HLU

The HLU cares for very acute and unwell patients at times. During your clinical placement you may be involved in caring for these patients with your preceptor.

*******Please be aware that a small number of HLU patients on cardiac telemetry need to stay constantly monitored for safety reasons. If in doubt, please check with your preceptor and be guided by them.*******

If you have serious concerns about a patient, press the emergency call button immediately (located in each room).

The emergency number in the hospital is **777.** This number can be used for any emergency in the hospital, such as medical emergencies, fire, or aggressive behavior.

The Medical Emergency Team (MET) responds to medical emergencies in the hospital.

If you are asked to place a MET call – please ring **777**

- State your name
- State that it is a medical emergency.
- State the location of the emergency (including ward, pod, and bed number)
- Request the operator to say it back to you
- Inform your colleagues you have activated the MET team

This is the procedure for any in-hospital medical emergency, including cardiac arrest. You can help clear the room and bring in the arrest trolley. These are in Pod D and Pod E. If the emergency is in Pod F get the trolley located in Pod E.

In the event of the fire alarm sounding please follow the instructions from the shift coordinator. If the sound is intermittent then the fire is in another area either adjacent, above or below you – so await further instructions. If the alarm is continuous the fire is in HLU and instructions will be given by the coordinator. A 777 call should be placed.

Tēnā koutou katoa e ono ki te tonga.

Nau mai haere mai.

Welcome all to 6 south, come on in.

Māori are more than twice as likely as non-Māori to die from cardiovascular disease and are more than 1.5 times as likely to be hospitalised for cardiovascular disease. Nurses need to be culturally responsive to meet the increasing health needs of Māori.

Below are a few important principles to help you along your journey:

Tikanga are Māori customary practices or behaviours. The concept is derived from the Māori word 'tika' which means 'right' or 'correct' so, in Māori terms, to act in accordance with tikanga is to behave in a way that is culturally proper or appropriate.

Mannaakitanga - Behaviour that acknowledges the mana of others as having equal or greater importance than one's own, through the expression of aroha, hospitality, generosity and mutual respect. In doing so, all parties are elevated and our status is enhanced, building unity through humility and the act of giving.

Whanaungatanga **-** Refers to connections with whanau/family, extended family and relationships at all levels. It is a relationship through shared experiences and working together which provides people with a sense of belonging. This simply means that an individual is not alone but has the guidance and support of the wider community.

Remember it is our professional responsibility to apply the 5 principles:

Protection, participation, partnership, tino rangatiratanga (self-determination) and equity.

Objectives

Planning objectives will help guide your learning and help you to meet your competencies too. The HLU is a dynamic environment. You may set an objective but never get the opportunity to fully put it in to practice. That is okay. You can learn a lot on the way. In many ways, this is an expected part of being a health professional. We learn and practice emergency resuscitation knowing that one day that knowledge may be vital.

Break objectives into manageable steps (RNs, CLNs, ALNs and other students can help you do this).

For example, a lot of students say to us, "I want to learn to read ECGs". This is a LONG-TERM goal (maybe years long). In the short term, you can take practical steps towards it.

Examples of steps towards ECG interpretation.

1. Learn how to take an accurate ECG and why accurate ECG taking is important
2. Learn how to identify and trouble shoot common problems with ECG taking
3. Identify <u>why</u> a patient needs an ECG taken. What extra information might the ECG give us?
4. When taking the ECG think about set (is the patient anxious or unconcerned? etc.,) and setting (are the curtains closed? Is the bed height right? etc.). What could you do to improve things and meet your obligations as an RN (for example, appropriate hand hygiene, providing privacy or warmth, etc.)? [1]
5. Learn how to label an ECG, who should review it, and where to file it
6. Learn what the squares on the ECG mean
7. Get hold of a book, or on-line course, on ECG interpretation to do your own study

[1] Set refers to the person's mental state, such as thoughts, mood, and expectations. Setting refers to the physical and social environment.

8. Learn how to read the heart rate (HR) on the ECG (there are several ways to do this)
9. Learn how to distinguish a regular vs irregular heart rhythm

And so on….
If you can learn to identify sinus rhythm (SR) from not SR you're making a good start.

Other objectives on 6 South (NOT a complete list) could be formed around:

- Fluid balance recording and interpretation
- Care for people with chest drains (including chest drain removal policy)
- Pain assessment (particularly cardiac sounding chest pain) and pain management
- PADP admission assessments and developing individualised daily care plans.
- Referring to/working with the MDT
- Preparing patients for procedures (angiograms/angioplasty, pacemaker insertion) or surgery (surgeries involving general anaesthetic such as CABG or thoracic surgery)
- Communicating with the team (taking/giving hand over, using ISOBAR on SmartPage, updating TrendCare)

In 6 South, as well as supporting people and their families emotionally and physically during their admission, you might come across: chest pain, 24hr IV infusions, cardiac monitoring, TR bands, intercostal chest drains (ICDs), patient controlled analgesia (PCAs), peripheral IV lines, central IV lines (CVLs or PICCs), epidurals, pacing wires, indwelling urinary catheters (IDCs), high flow nasal prongs (HFNP), thrombolysis, nasogastric tubes, blood transfusions, wound management.

Common Presentations to the HLU

- Cardiac arrest
- Heart attacks – medically known as a myocardial infarction (MI)
- Coronary artery disease
- Acute coronary syndrome = Unstable angina pectoris (USAP), non-ST elevated myocardial infarction (nSTEMI), ST elevated myocardial infarction (STEMI)
- Arrhythmias
- Valve disorders
- Infection (e.g. endocarditis, myocarditis, mediastinitis, empyema, infection of cardiac implanted devices)
- Cardiac inherited disorders
- Cardiac myopathies (Heart failure)
- Aortic aneurysm or dissection

Common procedures in cardiology

- Coronary angiography +/- angioplasty
- Pacemaker and defibrillator management
- Electrophysiology clinics (for example, ablation and isolation)
- Cardioversion
- Once a month only – Trans-Aortic Valve Implantation (TAVI)

Common procedures in cardiothoracic services

Cardiac Surgery (usually performed via a sternotomy):

- Coronary Artery Bypass Graft Surgery (CABG)
- Valve surgery (aortic, mitral, tricuspid)
- Aortic aneurysm and dissection repair (thoracic aorta only)
- Bentall's procedure (aortic root replacement)
- Mediastinal investigation and surgery (for example, excision of mediastinal mass)

Thoracic Surgery (usually performed via thoracotomy, or video assisted thoracoscopic surgery [VATS]):

- Partial/complete lung resections - segment/wedge, lobectomy, or pneumonectomy
- Management of pleural complications (for example, haemothorax, pneumothorax, pleural effusion, empyema)
- Pleurodesis
- Decortication
- Chest drain insertion
- Management of chest trauma (for example, fractured ribs or sternum following an accident)

Common investigations (cardiology and cardiothoracic)

- Blood tests – troponin T, HbA1c, lipid profile, electrolytes, creatinine, full blood count, BNP, coagulation studies
- Chest x-ray
- Resting electrocardiogram (ECG)
- Exercise ECG
- Cardiac MRI
- CTCA (CT coronary angiography)
- CTPA (CT pulmonary angiography)
- Echocardiography (also known as TTE, transthoracic echocardiogram)
- TOE (Trans-oesophageal echocardiogram)

Common Medications

All medication, including oral, subcutaneous, or IV, **must be administered under the direct direction of an RN**. This includes counter-signing the drug chart. Please note that CCDHB policy requires you to have completed the aseptic non-touch technique (ANTT course), available on ConnectMe, and a clinical day on IV therapy at your tertiary education provider (TEP) before performing IV medication and related therapies while on clinical placement. Please discuss any questions with your TEP and/or CLN.

When arriving to the ward it is recommended that you view the following policies:

- Safe Medicine Administration – Document number 1.964
- Administration and management of intravenous medicines and fluids – excluding neonates – Document number 1.190

These policies are available on Cap Docs on CCDHB intranet.

In the HLU we use a variety of cardiac and other medications, such as:

Drug Class	Example of a commonly used medication in this drug class
Beta Blockers	Metoprolol
Anti-platelets	Aspirin, Ticagrelor, Clopidogrel
ACE inhibitors	Cilazapril
Calcium Channel Blockers	Amlodipine, Felodipine, Diltiazem
Angiotensin II blockers	Candesartan
Diuretics	Furosemide (commonly called frusemide)
Anti-coagulants	Heparin, Enoxaparin (commonly called Clexane), Warfarin
Anti-arrhythmics	Amiodarone
Anti-anginals	Glyceryl trinitrate (GTN)
Opiates	Morphine, Fentanyl
Statins	Atorvastatin
Local anaesthetics	Ropivacaine
Antibiotics	Amoxycillin + clavulanic acid (commonly called Augmentin), Piperacillin + tazobactam (commonly called Tazocin), Cephazolin
Insulin	Protophane, Novarapid

It is recommended that you read up on these medications before attending your clinical placements

Pre-reading/Resources

Familiarize yourself with the basic anatomy and physiology of the cardiac and respiratory system.

You may want to read further into diseases such as coronary artery disease, aortic stenosis, mitral stenosis and heart failure. The New Zealand Heart Foundation website is a good starting point https://www.heartfoundation.org.nz.

In all pods on the Wellington Regional Heart and Lung Unit are folders with nursing guidelines for how to prepare and care for patients pre- and post-procedure. These include:

- Angiogram / Angioplasty
- NSTEMI management
- STEMI management
- PPM implantation
- Cardiothoracic surgery
- Thoracic surgery

There are further resources available on the ward to aid you in your learning.

We also provide education sessions for all nurses on the ward, Monday to Friday, at 1430hrs. You are welcome to attend.

Commonly used abbreviations in the HLU

ACS	Acute coronary syndrome
Ao	Aorta
AS	Aortic stenosis
AR	Aortic regurgitation
AKI	Acute kidney injury
AVR	Aortic valve replacement
AXR	Abdominal xray
BO	Bowels open
BP	Blood pressure
CABG	Coronary artery bypass grafts
CAD	Coronary artery disease
CHF	Congestive heart failure
COPD	Chronic obstructive pulmonary disease
CP	Chest pain
CKD	Chronic kidney disease
CT	Computerized tomography
CVD	Cardiovascular disease
CVL	Central venous line
DCM	Dilated cardiomyopathy
EDD	Estimated date of discharge
EPS	Electrophysiology studies
FBC	Fluid balance chart
FBC	Full blood count
GORD	Gastro-oesophageal reflux
GTN	Glyceryl trinitrate
HNPU	Has not passed urine
HO	House officer
HPU	Has passed urine
HTN	Hypertension
ICD	Internal cardiac defibrillator
ICT	Intercostal tube
IDC	Indwelling catheter
IHD	Ischaemic heart disease
IRU	Interventional radiology unit
IVC	Intra-venous cannula
LLL	Left lower lobe
LUL	Left upper lobe
MI	Myocardial infarction

MRI	Magnetic resonance imaging
MVR	Mitral valve replacement
NP	Nasal prongs
NSTEMI	Non-ST elevated myocardial infarction
OOHCA	Out of hospital cardiac arrest
OT	Theatre or Occupational therapist
PADP	Patient admission to discharge plan
PAMI	Primary angioplasty myocardial infarction
PCI	Percutaneous coronary intervention
PE	Pulmonary embolism
PICC	Peripherally inserted central catheter
PPM	Permanent pacemaker
PT	Physiotherapist
PVD	Peripheral vascular disease
PW	Pacing wires
RA	Room air
RESCUE	Failed thrombolysis needing urgent angioplasty
RFA	Right femoral artery
RR	Respiratory rate
RRA	Right radial artery
SOB	Shortness of breath
SOBOE	Shortness of breath on exertion
SATs	Oxygen saturations
STEMI	ST elevated MI
SVG	Saphenous Venous Graft
SW	Social work
T	Temperature
T1DM	Type 1 diabetes mellitus
T2DM	Type 2 diabetes mellitus
TAVI	Trans-aortic valve insertion
TR	Tricuspid regurgitation
TVR	Tricuspid valve replacement

Common Heart Rhythm Abbreviations

1° HB	First degree heart block
2:1 HB	Two to one heart block
2° HB	Second degree heart block
3° HB / CHB	Complete heart block
AF	Atrial fibrillation
AFl	Atrial flutter
BBB	Bundle branch block
JR	Junctional rhythm

PAC	Premature atrial contraction
PR	Paced rhythm
PVC	Premature ventricular contraction
SB	Sinus bradycardia
SR	Sinus rhythm
ST	Sinus tachycardia
SVT	Supraventricular tachycardia
VF	Ventricular fibrillation
VT	Ventricular tachycardia

The Main Coronary Arteries

Cx	Circumflex
LAD	Left anterior descending
LMS	Left main stem
RCA	Right coronary artery

Treasure Hunt

This list is designed to help you become familiar with the environment but is by no means exhaustive of all the things you will be required to locate. Some of the equipment is central (shared), some is stocked in all pods, some is digital.

☐	Pyxis Medication Machine	☐	Discharge information
☐	Controlled Drug cupboard	☐	Clinical policies & procedures
☐	Transport heart monitors	☐	"Notes on Injectable Drugs" (NOIDs)
☐	Linen supplies	☐	Roster
☐	Clinical Nurse Manager Office	☐	Manual sphygmomanometer
☐	Heart feedback board	☐	Bathroom emergency bell
☐	Intravenous Fluids and equipment	☐	Scales
☐	Main storeroom	☐	Bio-hazard bags
☐	Staff tearoom	☐	Tympanic thermometer & covers
☐	Two Resuscitation trolleys	☐	Stationery supplies
☐	Utility rooms /Sluice rooms (Clean and Dirty sides)	☐	Photocopier / Scanner
☐	Utility cupboards	☐	Patient charts
☐	Dressing trolleys and dressings	☐	Laboratory forms
☐	Isolation Equipment	☐	Isolation linen bags
☐	ECG machine	☐	Incident reporting
☐	Blood glucose trolley	☐	ECHO suite (also known as the treatment room)
☐	Social Work Referral	☐	Sterile Gloves
	Where to store your bags	☐	Pneumatic Tube System
☐	Senior nurse's office (ACNMs and NEs)	☐	Drug Fridge
☐	Bedside suction equipment	☐	Bedside Emergency Bell

Evaluation of Clinical Experience

Nurse:_____ Date of placement _____

Date of Evaluation: _____ Preceptor: _____

This evaluation is intended to offer feedback to the preceptor and their clinical area.

Clinical Learning	1 Strongly Agree	2 Agree	3 Neither agree or disagree	4 Disagree	5 Strongly disagree	Comments
The staff were welcoming and learned to know the students by their personal name						
The staff were easy to approach and generally interested in student supervision						
A preceptor(s) was identified/introduced to me on arrival to area						
One preceptor had an overview of my experience and completed my assessment						
An orientation to the clinical area was provided						
My learning objectives were achieved						
I felt integrated into the nursing team						
I formally met with the "named preceptor" at least fortnightly						
There were sufficient meaningful learning situations in the clinical placement						
How were the Preceptors?						
The preceptor assessed and acknowledged my previous skills and knowledge						
The preceptor discussed my prepared learning objectives						
The preceptor assisted with planning learning activities						
The preceptor supported me by observing and supervising my clinical practice						
The preceptor was a good role model for safe and competent clinical practice						
I felt comfortable asking my preceptor questions						
The preceptor provided me with regular constructive feedback on my practice						

Additional comments:

Please return this form to Charge Nurse Manager or Clinical Nurse Educator