Victorian Heart Hospital Organisation Wide Impacts

Michael Franco – Program Director EMR & Informatics, Chief Medical Information Officer







Monash Health acknowledges the Traditional Custodians of the land, the peoples of the Kulin nation, and we pay our respects to them, their culture and their Elders past, present and emerging.



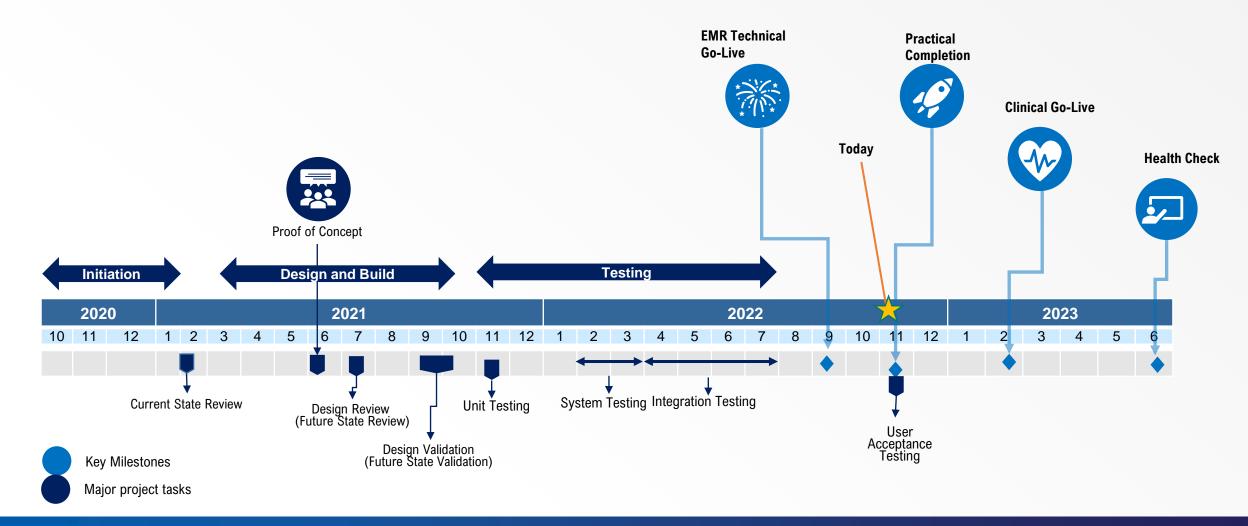


Victorian Heart Hospital (VHH) EMR Project

- Commenced early 2021
- Baseline: existing Monash Health EMR
- Significant additional functionality added for VHH
- New solution design workshops close collaboration with Monash clinicians and leadership



VHH EMR High Level Timeline



Organisation Wide VHH Impacts - Overview

EMR Ordering

Clinical Documentation

Cardiology Results

Clinical Communication

Capacity Management

EMR Mobile Apps

Patient Portal

Training Overview

PowerTrials

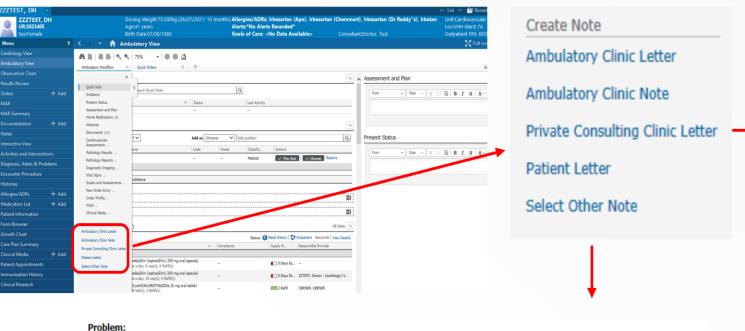
Clinical Documentation



Clinical Documentation

Current State	Future State
Monash Heart specialist clinic notes in SMR Anaesthesia records on paper and scanned into SMR	Documentation for patients attending VHH will be in EMR • VHH clinic notes • Anaesthesia records • Images from EMR Camera Capture / Powerchart Touch (found in Clinical Media tab)

VHH Ambulatory Clinic Documentation



Clinically insignificant → atrial septal defect. No intervention required. •

Thank you for your referral of DIAGONE EMRTEST whom I had the pleasure of seeing today at the Victorian Heart Hospital with his mother for review related to their patent ductus arteriosus.

DIAGONE is described to be generally well, and appears asymptomatic from a cardiac perspective. They are described to be growing and developing appropriately.

No relevant past medical history was described. → No family history of relevance was reported. →

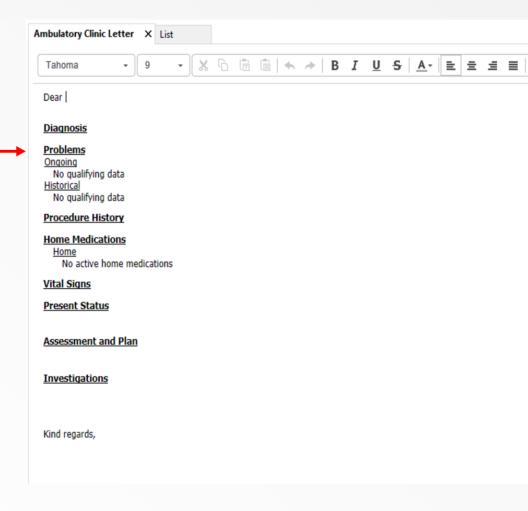
DIAGONE is taking no regular medications. Her has no known allergies. Immunisation status is up to date.

Examination:

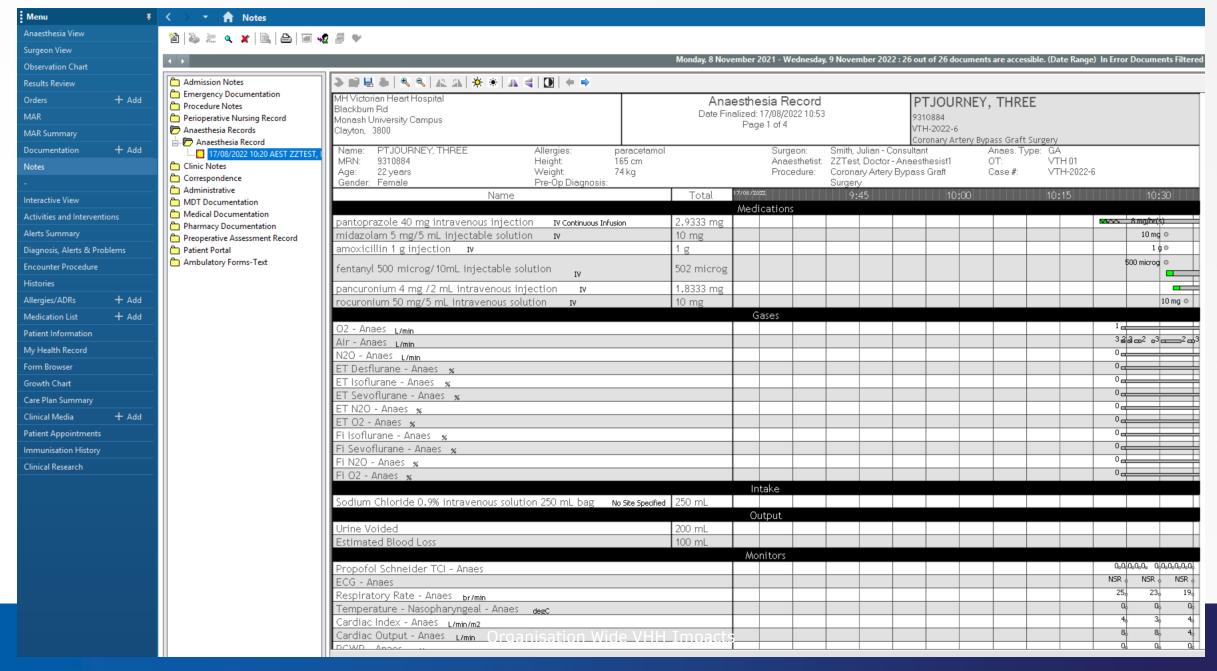
Examination revealed DIAGONE to appear well, Observations are detailed above, Pulses were normal, including femoral pulses, Blood pressure was measured in the right arm. The heart sounds were normal with no added sounds. No murmur was heard ejection systolic murmur was heard at the upper left sternal edge. No diastolic murmur was heard + early diastolic + murmur was heard at the upper + left + sternal edge. The chest was clear and there was no hepatomegaly.

An ECG was performed today. The findings were normal for age, The rhythm was sinus rhythm, The frontal ORS axis was normal for age, Precordial voltages and intervals were normal. There was no evidence of pre-excitation.

An echocardiogram ▼ was ▼ performed recently. ▼ The findings were stable, demonstrating ▼



VHH Anaesthesia Record

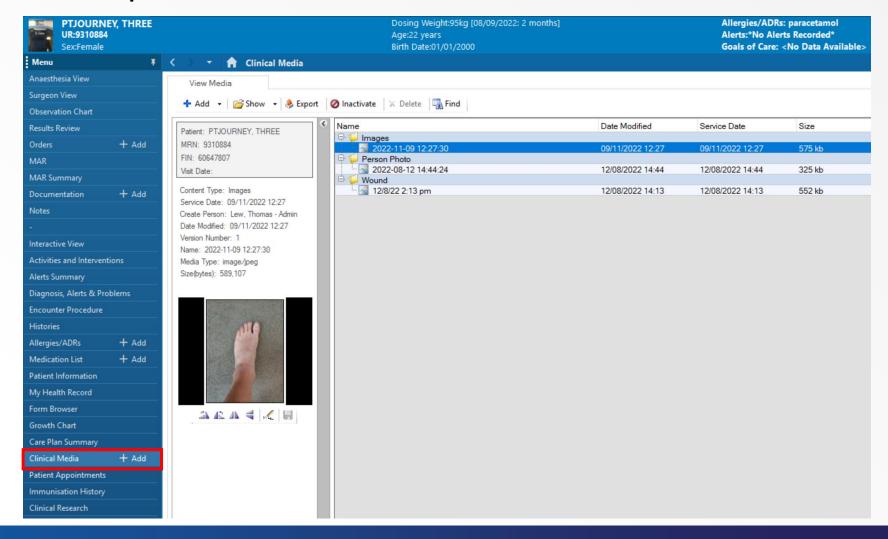


Camera Capture

Mobile App



Desktop



Clinical Documentation

Clinical Discipline	What is the impact beyond VHH?
Medical	Know where to find and access cardiology investigation results Consistently review the EMR for latest relevant results or notes , especially if seeing patient in a non-VHH outpatient clinic
Nursing	Know where to find and access cardiology investigation results
Allied Health	Know where to find and access cardiology investigation results
Pharmacy	Know where to find and access cardiology investigation results

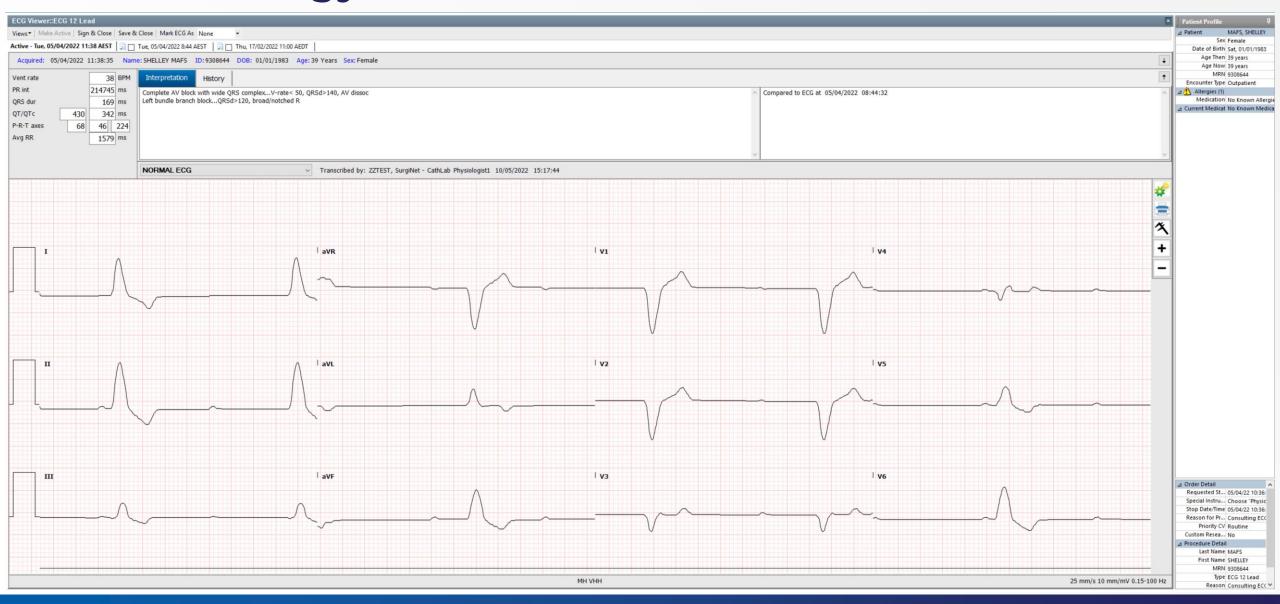
Cardiology Results



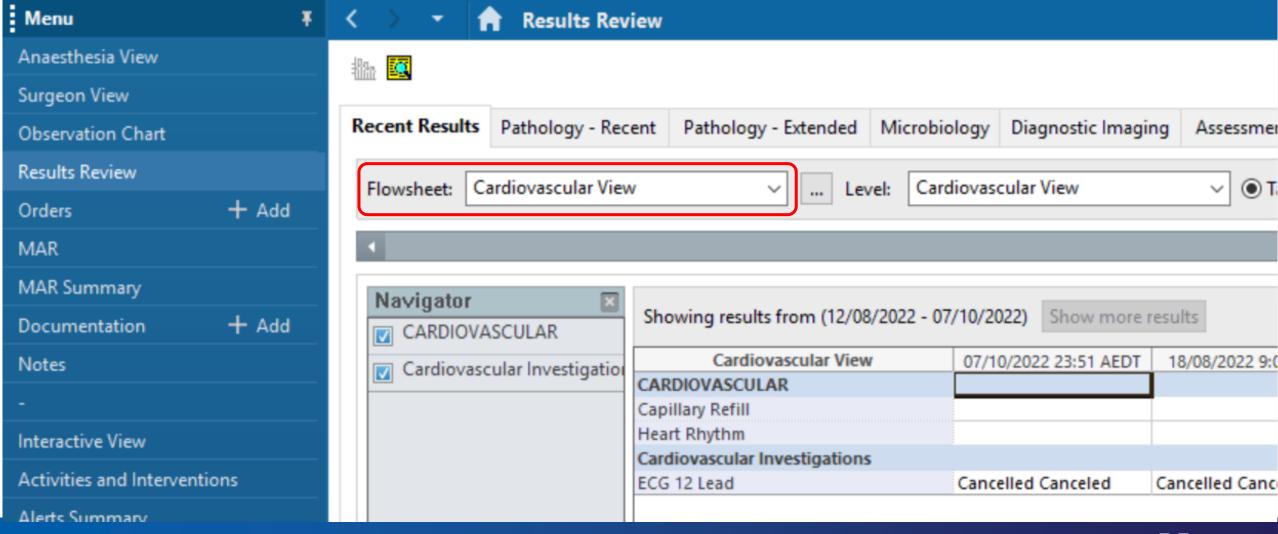
VHH Cardiology Results

Current State	Future State
 Monash Heart investigations reported in HealthTrack and copy sent to EMR and SMR as PDF Results found in Results Review under "Other Documents" tab or Investigations tab in SMR 	 VHH 12 lead / Stress ECGs reported directly in EMR, and accessed using ECG viewer All other results will be found in the Cardiology folder of "Other Diagnostics" tab in Results Review (PDF) Cardiology View Results flowsheet available

VHH Cardiology Results - 12 lead ECG viewer



VHH Cardiology Results: Results Review - Cardiovascular View Flowsheet



Cardiology Results

Clinical Discipline	What is the impact beyond VHH?
Medical	Know where to find and access cardiology investigation results Consistently review the EMR for latest relevant results or notes, especially if seeing patient in a non-VHH outpatient clinic
Other Clinicians	Know where to find and access cardiology investigation results

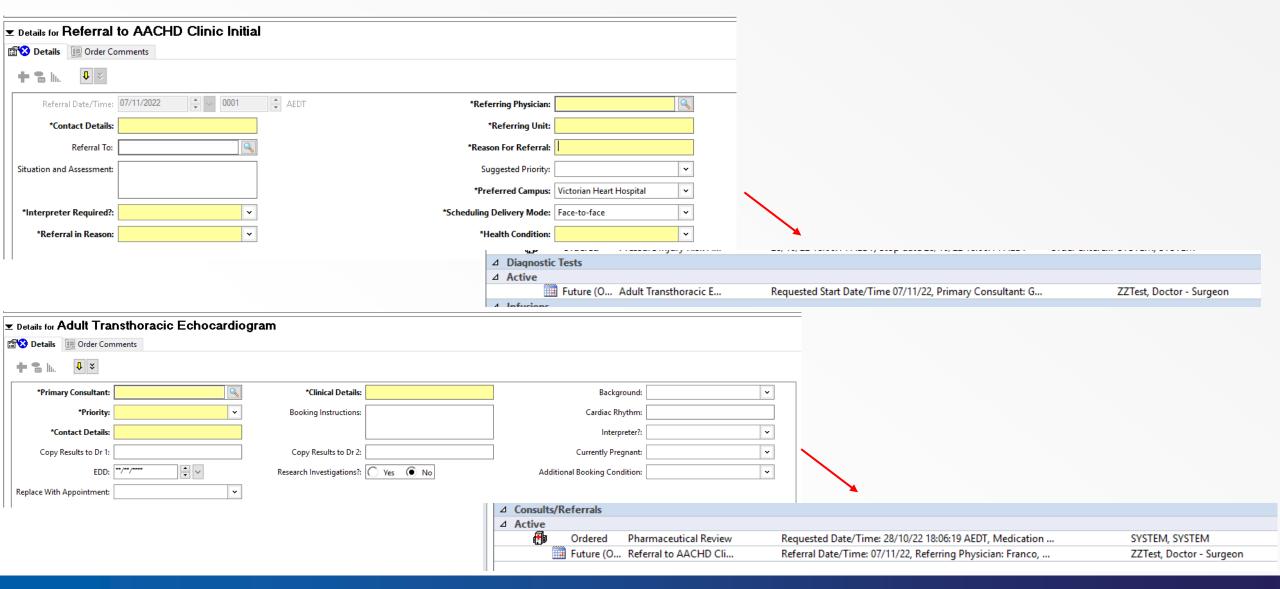
EMR Ordering



Future Orders

Current State	Future State
Not possible to place orders intended to be scheduled for a future date or visit	Availability of Ambulatory functionality in EMR allows future ordering of: • Referrals to VHH Outpatient Clinics • Monash Heart • Cardiac Surgery • Requests for VHH Cardiology Investigations • Echocardiograms • Functional Cardiac Testing (e.g., stress echo/ECGs) • Pathology / Diagnostic Imaging for VHH patients

Future Orders

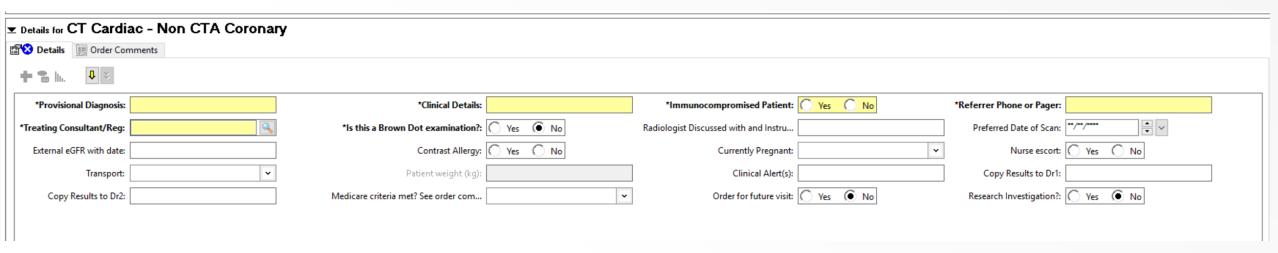


Future Orders

Clinical Discipline	What is the impact beyond VHH?
Medical	Use EMR electronic orders for MH patients for VHH clinics and investigations . These will be triaged and scheduled by VHH staff
Nursing	Understand how to identify future orders and not action them
Diagnostic Imaging	Understand how to identify future orders for DI and how to action them appropriately
Phlebotomy	Understand how to identify future orders and not action them / or activate them as required

EMR Orders - Cardiac CT & MRI

Current State	Future State
	 Cardiac CT / MRI is ordered in the EMR
 Cardiac CT / MRI is ordered via paper request and reported in HealthTrack 	 Image & Report is stored in CareStream PACS
	 Result is available under Results Review in EMR



EMR Orders - Cardiac CT & MRI

Clinical Discipline	What is the impact beyond VHH?
Medical	Use EMR electronic orders for MH patients for Cardiac CT and MRI Find Cardiac CT and MRI results in Diagnostic Imaging tabs in Results Review
Diagnostic Imaging	Reporting of Cardiac CT and MRI to be done solely in CareStream
Cardiology	Reporting of Cardiac CT and MRI to be done solely in CareStream

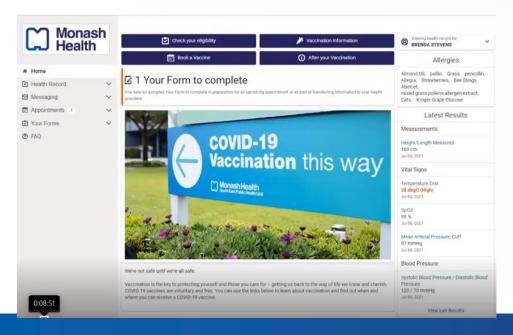
Patient Portal

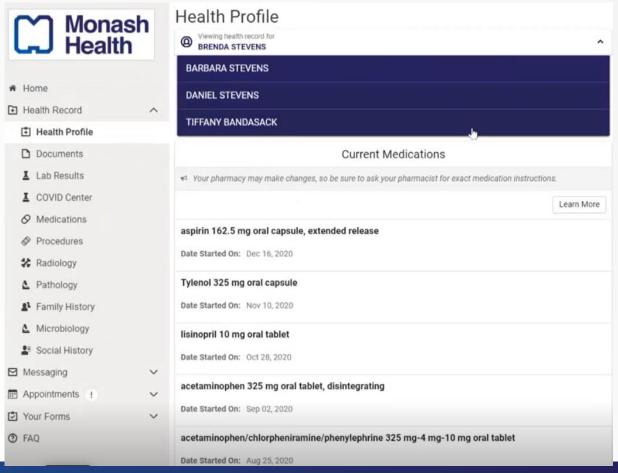


Patient Portal

Allows patients to access their medical information safely and easily from Monash Health.

- View, Request reschedule or cancel upcoming appointments
- View test results (results and reports posted after a 7-day delay)
- View and download their medical records (limited)
- View clinic letters that have been sent
- View inpatient discharge summaries
- Complete preadmission patient forms online







Patient Portal

Clinical Disciplines	What is the impact beyond VHH?
Medical	
Nursing	 Previous VHH patient may have a Patient Portal account so will have access to discharge summaries regardless of which site they were admitted Relevant documents and results from subsequent non-VHH visits will also be made available for patients with Portal
Allied Health	
Pharmacy	
Clerical	



Capacity Management



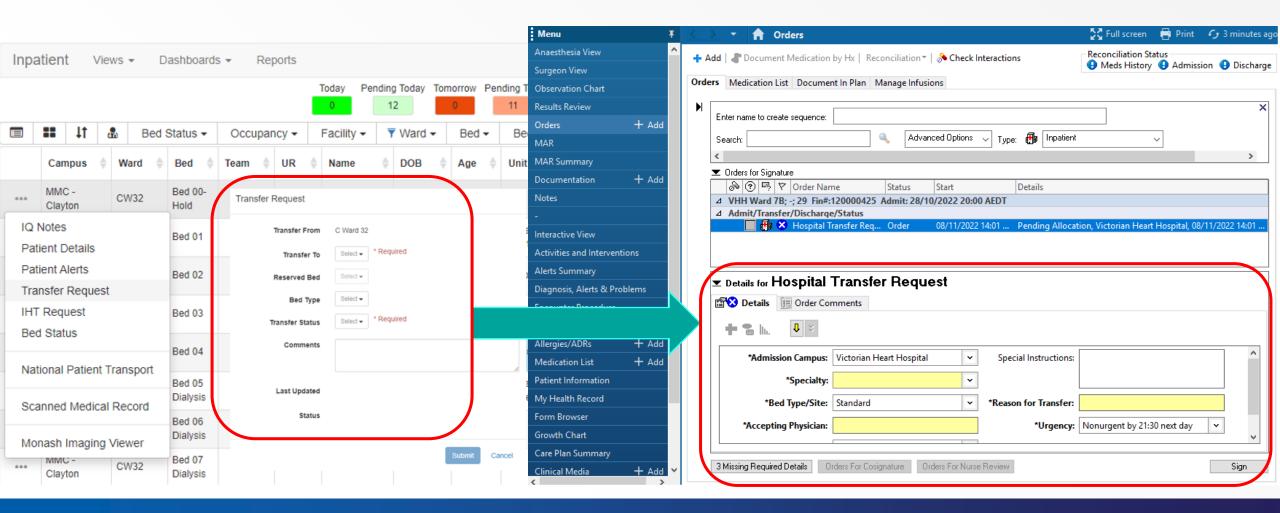
Capacity Management (Cap Man)

 Cap Man – new EMR application used for cleaning, transport and bed allocation

Organisation Wide	VHH
 Bed request orders Bed allocation - Impact on DCOs, NCOs, Bed Managers 	• Additional functionality of cleaning and transport jobs

Cap Man

All bed request orders will be placed within the EMR and not in PFM.



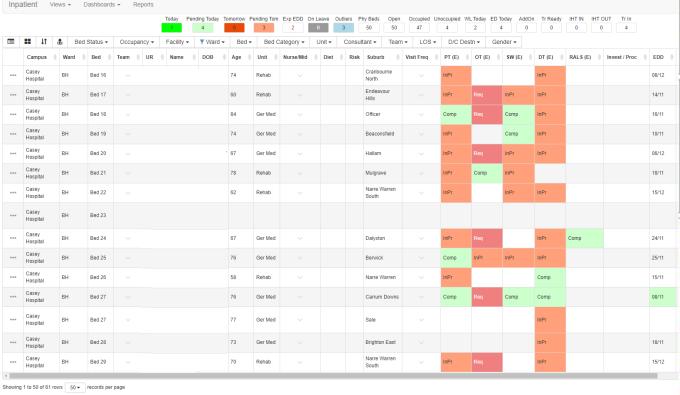
Cap Man

Transportation Unit Continue Wil Controlled Services/EIS Capacity Metrics Doubtoard Arcibley Patient Access Bad Management House Supervisor/Bad Management EVS/Transport John All bed allocation will be done within Cap Man O O O O SE SE SE Victorian Head Hoopital > SE Victorian Head Hoopital > ■ Sondertist II
■ Dochwyelist
■ PreAdmittist Transfer List 24/54 @ Fending Allocation (5/1) by DCOs, NCOs, Bed Managers Status Timer (mins) Current Location Destination Patient Abroules 0.500-990, 506 General Wedictne, Standard, (23). VIEW WORKFLOW, ED DR ASSESSMENT WHIST ED-JUST Standard Monautinear, You ton 61243517 BED, DAN D-ED-WR-71928 affa, Standard, General Medicin. 60093721 TEST. ACMITTING VHH ED-ED: A12 60264167 Next, Standard, Cardiothoracic S. B COVID Medical Confirmed 2 Transfer Request capman, bestrequest2 VHH ED-ED, ADT 60083126 Capman, Preadmit Rose VHH-ED-INR Cardiohoracic Surgery, VHH Mo. 60063918 Dental Surgery Cases Gen Surg. PPVHHITEST PORTAL B VMH Ward 7/4. VKL-9100450 BED, CLA CED-WR Main Duong Wen Hung-Consistent 60283720 C Ward 32 Transfer From ZZZTEST, MYLES VHH Wats 7A-, 15 60282907 VMT Worklow, ED Procedural Billing WHITED-INFE Monastrieut, Standard 61040520 Admission Date His 12 Babic Molittan, Clinton C. Ward 32 - 28 Mt. Anaesthekos, Standard 60283362 Required Select ▼ Transfer To UNITTESTING, PATIENTONE J VHH EDIL at Depart Ear, Nove & Throat Surgery, Stu. 60283142 * Request must be created before ward can be assi-Accomodation, Default VHH ED-INR 00283601 SURGANITEST, ADULTENALEFOUR Andre Strang 7.4. VHL-910064 181 WW2 74-, 09 Vidoran Heart Hospital, Cardiol. Select ▼ Reserved Bed Relectment Propositi 60084161 Admission Approved VHH ED-Admit. Standard: Cardiothorads Surger Capman, Jose Referral Her Consulting Ct. 60292864 TEST, ME MH Intended Care Dandenong Intensive Care, Mon. 60283271 Select ▼ Bed Type Admission Clerk Informed TEST CONVO WHITED-OR Standard Adolescent Medicine 80083045 VHH Worldow, ED DR end of Shift handover VHH ED WA 60283519 MonashHeart, Standard Required Ward Informed Select ▼ Transfer Status Part Vaidor Proceed Maderia, Physics B. P Bed Stoard 7 Bed Allocated by Bed Manager Patient Informed Comments Transfer Requested PAED Patient Informed * M* 2* @ Comments Last Updated WHAT ED. STS. A WHICHER 12% y WHITImaging Centre 2% > 1980 Immediate Kermeny Centre Status Ren 1 Avail 2 Fending Out 21 Fending in 2 8/3 Res & Avail & Fending Out 1 Fending in 1810. tes 1 Avail 12 Pensing Out 1 Pensing in 6 81 0 Rec & Avail 33 Fending Out 5 Fending in 3 Bi 1 1 Strings < 00-Held 67 ED, ADY Cancel



Site visibility

Non-VHH: continue to use PFM



PFM not used at VHH, but all above mentioned steps write to PFM





PowerTrials

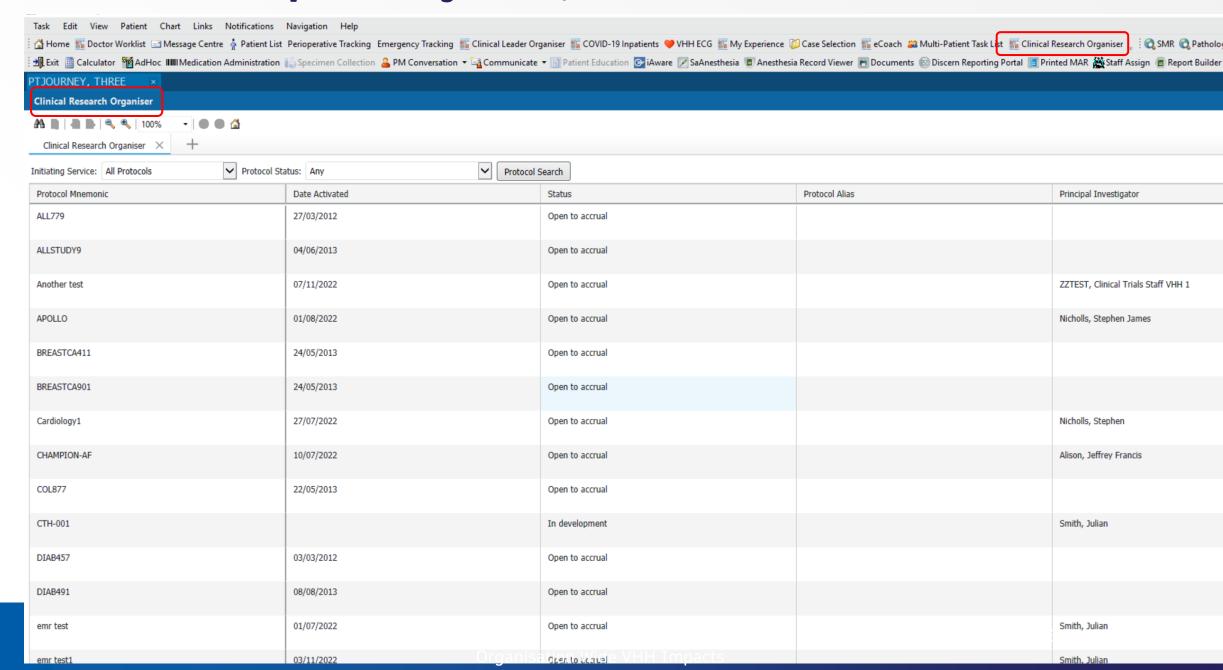


VHH Clinical Trials in EMR

- Single repository of clinical trials conducted at VHH
- Ability to easily identify patients participating on a clinical trial
- Research appointments will be scheduled in the EMR
- Study team is notified if clinical trial patient is admitted to ED or as an inpatient



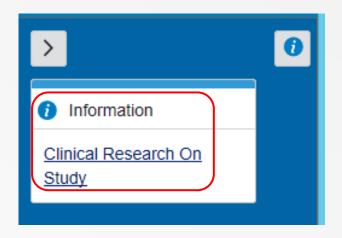
Clinical Trial Repository Ability to see the list of clinical trials in one place

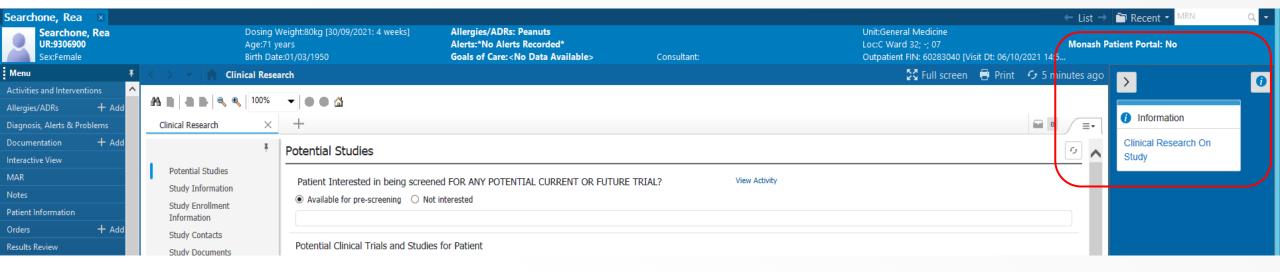


Identifying patients on Clinical Trial

Patients can be easily identified if they are on a clinical trial:

- Banner bar alert
- SmartZone

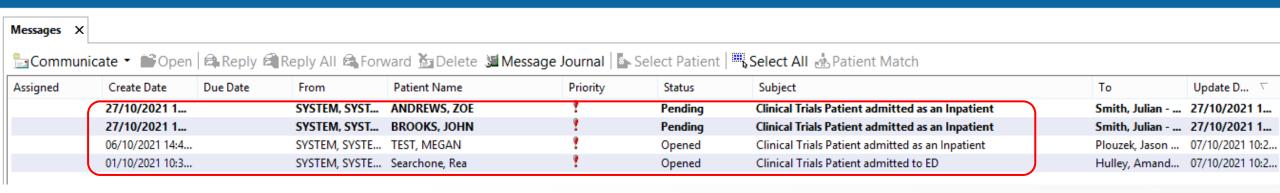






ED or Inpatient Admission Notifications

When a clinical trial patient is admitted to ED or as an inpatient, the primary contacts in the study team will be notified in Message Centre



PowerTrials

Clinical Discipline	What is the impact beyond VHH?
Medical – inpatient	 Problems List documentation Identification of potential patient consent Clinical Trials Alert
Nursing	• Clinical Trials Alert
Pharmacy	 Clinical Trials Alert Trials Medication review and supply

Clinical Communication



Clinical Communication

Current State	Future State
Staff have access to same communication platforms across Monash Health including MS Teams	 VHH staff will not have: LAN page / paging SmartPage Only VHH staff will have access to: Zebra mobile clinical handhelds Cerner CareAware Connect Messenger mobile app Likely solution will be use of MS Teams & Baret for contacting staff at VHH

Training



VHH Training Model

- Hybrid model: eLearning, Simulation Lab, Webinars, Knowledge Hub, and practise
- Most disciplines attend Simulation Lab (located on-site at Clayton and VHH), in person not online
- eLearning module completion and Simulation Lab bookings via Latte available now
- VHH new recruits
 - 1. EMR Foundations eLearning and webinar training, plus
 - 2. VHH **eLearning** modules, plus
 - 3. Attend relevant **Sim Lab** session or webinar
- Employees transferring/rotating to VHH
 - 1. VHH eLearning modules, plus
 - 2. Attend relevant **Sim Lab** session or webinar



VHH Training Matrix - Clinical Streams

Clinical Discipline	Existing/New Employees	Total Learning Time (hrs)	eLearning (hrs)*	Webinar (hrs)	Simulation Lab (hrs)
Allied Health / Cardiac Rehab- VHH Ambulatory	Existing	2	1		1
	New	6 – 8	5	2 +/- optional 1	
Cardiac Physiologists (Monash Heart)- VHH Ambulatory	Existing	2	1		1
	New	3.5	2.5		
Diagnostic Imaging / Cath Lab Rad Tech - VHH Ambulatory	Existing	1	1		- n/a
	New	4	4		
Nursing Ambulatory (including PAC) - VHH Ambulatory	Existing	2	1		- 1
	New	5.5	4.5		
Nursing - Inpatient & ED (incl 32, 32W, CCU, ICU, ED, Periop, Cath Lab, CT, MRI)	Existing	3	1.5		1.5
	New	9	5.5	2	
Pharmacy - VHH Ambulatory/ Inpatient Pharmacists	Existing	3	1		2
	New	9	5	2	
Pharmacy - VHH Ambulatory/ Inpatient Pharmacy Tech	Existing	3	1		2
	New	7	5		
Medical - Ambulatory/ Inpatient/ ED	Existing	2	1		1
	New	8	5	2	
Medical - Anaesthetics	Existing	2	1		1
	New	8	5	2	

VHH Training Matrix - Clinical Support Streams

Clinical Discipline	Existing/New Employees	Total Learning Time (hrs)	eLearning (hrs)*	Webinar (hrs)	Simulation Lab (hrs)
Clerical Scheduling- VHH Ambulatory Clerical Scheduling Advanced - VHH Ambulatory	Existing	2	1		1
	New	6	3	2	
Phlebotomy - VHH Ambulatory	Existing	2	1	1	n/a
	New	4	3	1	
Support Services - VHH Capacity Management	Existing	2	1		1
	New	2	1		
Bed Management - VHH Capacity Management Non VHH Bed Managers, DCOs, NCOs	Existing	2	1		1
	New	4	3		
Bed Management - VHH Capacity Management VHH NCOs, DCOs	Existing	5	2.5		2.5
	New	10	7.5		
VHH Power Trials (Medical/ Nursing/ Researchers)	Existing	2	1		1
	New	3	2		
VHH Power Trials (Coordinators)	Existing	4	2		2
	New	5	3		2



VHH Training

What needs to be completed before VHH Go-Live



2

Book into Sim Lab/Webinar

Managers ensure employees are **booked** in relevant Sim Lab/ webinar

Book on **Latte** via EMR Webinars tab

Booking schedule available **now**See manager email **instructions**

Complete eLearning

On Latte from 1 December

Link on Latte EMR eLearn

Program tab

Complete prior to attending

Sim Lab/Webinar

Attend Webinar

New employees attend relevant **EMR Foundations** training webinar

New and existing employees attend relevant VHH EMR webinar

Attend Sim Lab

Attend booked onsite Sim Lab training

Available from **5 December** for scheduling & Clinical Trials

Available from **9 January** for all streams

Questions

