



Western Health

**Joan Kirner Women's and Children's  
Division of Women's and Children's Services  
Neonatal Hospital in the Home (HITH)  
Operating Guideline**

Version Number 2.0 - FINAL

March 2019



## Neonatal HITH Operating Guideline

### Document Control

#### Authors:

- Barbara Capewell, ANUM Neonatal HITH
- Jacquie Whitelaw, Neonatal Services Development Manager

**Creation date: October 2018**

Version Amendment History			
Version	Date Created	Sections Changed	Created/Amended by
v. 0.1 – First Draft	16/10/2018	First draft commenced	Barbara Capewell Jacquie Whitelaw
v. 0.2 – Second Draft	26/11/2018	Incorporated feedback from E. Casey, M. Dodsworth	Barbara Capewell Jacquie Whitelaw
v.1.0 – First Final Draft	30/11/2018	Incorporated feedback from M. Dodsworth, B. Capewell and Neonatal Medical Team	Jacquie Whitelaw
v. 2.0 – Final	11/02/2019	Incorporated feedback from stakeholders as per Appendix 3	Jacquie Whitelaw

Document Distribution History			
V.	Sent to <i>Name of individual or committee</i>	Position/Title	Date Sent
0.1	Erin Casey Melissa Dodsworth	Joan Kirner Operational Support Manager Nurse Unit Manager Special Care Nursery	16/10/2018
1.0	Refer to stakeholder list in Appendix 3	Refer to stakeholder list in Appendix 3	21/12/2018

<b>Document File Location</b>	<i>S://W&amp;C JCORM Operations/JCORM/Models of Care/New (Future State)/Newborn Services</i>
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## Abbreviations and Acronyms

AHA	After Hours Co-ordinator
AH&CS	Allied Health and Community Services
ANUM	Associate Nurse Unit Manager
BLS	Basic Life Support
BLSD	Basic Life Support & Defibrillation
BOS	Birth Outcomes System
CGA	Corrected Gestational Age
CPIS	Clinical Practice Improvement Specialist
CSCF	Clinical Services Capability Framework
DMR	Digital Medical Record
ED	Emergency Department
FTE	Full Time Equivalent
EMR	Electronic Medical Record (CERNER)
GP	General Practice
HENS	Home Enteral Nutrition Service
HITH	Hospital In The Home
ICT	Information & Communication Technology
MaP	Monitoring and Performance
MCHN	Maternal and Child Health Nurse
MOC	Model of Care
NGT	Nasogastric Tube
NLS	Neonatal Life Support
NUM	Nurse Unit Manager
PACS	Picture Archiving and Communication System
PNSC	Paediatric & Neonatal Speciality Clinics
RCH	Royal Children's Hospital
RWH	The Royal Women's Hospital
SH	Sunshine Hospital
VHIMS	Victorian Health Incident Management System
W&C	Women's & Children's
WH	Western Health





## 1. Introduction

### 1.1 Purpose

The purpose of this Operating Guideline is to profile the Neonatal Hospital in the Home (HITH) service and to provide details of the day to day operation of the service.

This Operating Guideline describes the various components and associated processes of the woman's journey, staffing requirements, leadership and management structures, clinical and non-clinical support requirements, infrastructure requirements and communications procedures.

### 1.2 Intended Audience

This document is intended for use by the following audience:

Who	Utilisation
<ul style="list-style-type: none"> <li>• W&amp;C Leadership &amp; Management Team</li> <li>• W&amp;C Services Operational Projects Team</li> <li>• AH &amp; CS Leadership and Management Team</li> </ul>	<ul style="list-style-type: none"> <li>• To be used as a baseline plan and overall tool to define what and how the Neonatal HITH service operates.</li> </ul>
<ul style="list-style-type: none"> <li>• Frontline staff</li> </ul>	<ul style="list-style-type: none"> <li>• To provide frontline staff, particularly those who are new to the service, with a detailed understanding of the day to day operation of the Neonatal HITH service.</li> </ul>

Table 1: Intended Audience

### 1.3 Key Definitions

**Neonate:** For the purposes of this document, unless otherwise stated, 'Neonate' refers to infants within the first 28 days of life if born  $\geq 37$  weeks gestation, or a preterm infant born at  $< 37$  completed weeks gestation who is  $\leq 44$  weeks corrected gestational age.

### 1.4 Related Documents

This document forms part of a suite of documentation outlining the provision of neonatal and paediatric service delivery across various phases of care at Western Health (WH).

As such, it should be considered in conjunction with the following:

- *Newborn Services Model of Care (2019)*
- *Newborn Services Operating Guideline (2019)*
- *Paediatric Services Model of Care (2019)*
- *Children's Ward Operating Guideline (2019)*
- *Paediatric and Neonatal Specialist Clinics and Paediatric Allied Health Operating Guideline (2019)*

## 2. Service Overview

Western Health's Neonatal HITH provides nursing care and assessment to neonates discharged from Newborn Services, Children's Ward and the Maternity Wards in their home environment, or in another suitable environment such as the Rapid Review Clinic.

The most common cohort of neonates eligible for HITH are those who require admitted care in a hospital and still require treatment at home as an alternative to ongoing hospitalisation as a continuation of that care.

The total number of newborns seen each day by Neonatal HITH will depend on acuity, need for parental education and number of staff rostered to provide the service.

Patients who are discharged home with Neonatal HITH follow-up and who require medical review, will be referred to the Neonatal Rapid Review Clinic (Tuesday – Friday) located in the Children's Clinic on the Ground Floor of the Joan Kirner Women's and Children's (JKWC) at Sunshine Hospital (SH). The Neonatal HITH nurse will ring Paediatric and Neonatal Specialist Clinic to facilitate booking of the rapid review appointment. This clinic is registrar-run and consultant supervised.

Where demand for Neonatal HITH exceeds capacity, a couple of alternatives exist, including discharge with Rapid Review Clinic medical follow-up, continuation of a Newborn Services inpatient stay, or moving neonatal patients to Children's Ward where appropriate (refer to Appendix 1).

### 2.1 Location and Operating Hours

The Neonatal HITH Service is provided in the patient's home as a nursing review and is available Sunday to Friday 08:00 – 16:00, or as a scheduled visit to Paediatric and Neonatal Specialist Clinics for consultation and medical review.

Parents or carers/guardians of patients allocated to Neonatal HITH are informed as to how to access assistance out of hours. This includes Ambulance Victoria for emergencies, or phoning Newborn Services to discuss non-emergencies with the Associate Nurse Unit Manager (ANUM) or Neonatal Registrar on duty. Out of hours phone discussions are documented in the neonate's medical record.

### 2.2 Patient Profile

Neonatal HITH accepts referrals for neonates greater than 35 weeks gestation. Neonates, as defined in Section 1.3, are the population covered by the Neonatal HITH service.

WH's [Neonatal/Paediatric Hospital in the Home](#) guideline provide information for nurses, midwives and medical staff to facilitate a smooth transition from hospital to home and to support the shift of responsibility of care to parents.

Minimum requirements for Neonatal HITH eligibility include:

- Living within the WH catchment area and assessed as being suitable for Neonatal HITH (families living outside the catchment area may be considered suitable for Neonatal HITH if the families are receiving services from Sunshine/JKWC)
- Assessed as being clinically stable
- Appropriately supported in the home; for example, by parents or other appropriate person
- Living in a suitable environment with access to a telephone
- Suitable for Neonatal HITH treatment
- Has parental/carer/guardian consent for Neonatal HITH treatment
- Not pose a potential danger to Neonatal HITH staff members

Patients suitable for consideration of Neonatal HITH include:

- Newborn Services Patients:
  - CGA greater than 35 weeks
  - Discharge weight less than 2300g but  $\geq 2000$  grams
  - Patients discharged with Home Oxygen therapy
  - Patients discharged with a long term nasogastric tube (NGT) on the Home Enteral Nutrition Service (HENS) program
  - Needing support regarding jaundice, respiratory conditions, cardiac conditions, general ex-prematurity
- Maternity Ward Neonatal Patients:
  - 35 – 36<sup>+6</sup> weeks birth gestation
  - Discharge weight less than 2300g but  $\geq 2000$  grams
  - Excessive (>10%) weight loss, poor feeding with paediatric/neonatal involvement and or readmission to Newborn Services or Maternity Wards
- Children's Ward Neonatal Patients:
  - All the above criteria

## 3. Referral

### 3.1 Referral sources

The majority of referrals to Neonatal HITH come from the following internal WH sources:

- Maternity Wards
- Newborn Services
- Children's Ward

Referrals are also received from external Level 6 hospitals including The Women's Hospital (RWH), the Royal Children's Hospital (RCH), Monash Children's Hospital and the Mercy Hospital for Women – Heidelberg. External referrals are made via a phone call to the HITH Co-ordinator who completes referral paperwork. Admission of external neonates is on iPM to the Neonatal HITH service.

### 3.2 Referral Processes

All patients must be assessed by the treating Neonatologist/Paediatrician as medically suitable for Neonatal HITH. Figure 1 describes the current referral process for Neonatal HITH.



Figure 1: Neonatal HITH Referral Process

### 3.3 Home Visit Risk Screening

All patients must be screened prior to acceptance for a home visit using the relevant departmental *Home Visit Risk Assessment Tool* to identify all potential risks. The completed tool must be filed in the patient's history. Refer to [OP-SE1.4.4 Occupational Health and Safety Procedures for Home](#).

Neonatal HITH staff will carry phones with inbuilt duress system consistent with Maternity @ Home, Midwifery group Practice and adult HITH providers.

### 3.4 Consent for Neonatal HITH

Parents/carers must be provided with written and verbal information about the service to enable them to make an informed decision prior to participation. This information is included in the Neonatal HITH brochure. Verbal and written consent must be obtained by the Midwife/Nurse allocated to the patient and documented on the [Consent Form AD 36](#).

Once medical suitability has been confirmed, and consent has been obtained, the midwife or nurse contacts the Neonatal HITH Nurse to advise them of the pending referral and to discuss Neonatal HITH capacity. Referrals are currently made Monday – Friday via a phone call to the HITH Co-ordinator, and on Saturdays via a phone call to the Newborn Services ANUM/Nurse in Charge (NIC). Accepted referrals are transferred onto iPM.

The [HITH Assessment Form AD 220](#) and the [HITH Referral Form AD 221](#) is completed by the allocated Midwife/Nurse when referring patients to the Neonatal HITH Service.

## 4. Admission

### 4.1 Clerical Admission

Transfer of a patient to Neonatal HITH is completed by Newborn Services clerical staff in iPM. The Birthing Outcomes System (BOS) is updated to include Neonatal HITH in the discharge summary by the nurse/midwife.

### 4.2 Nursing Admission

Confirmation of consent is as per Section 3.2 and collation of the following hospital-based documentation:

- *Birthing Outcome System (BOS) Newborn Services Discharge Summary (if referred from Newborn Services) or Obstetric Discharge Summary (if referred from Maternity Wards)*
- [Postnatal Clinical Pathway AD 128](#) (if referred from Maternity Wards)
- [Neonatal Assessment and Variance Form AD 171](#) (if referred from Maternity Wards)

## 5. Service Provision

### 5.1 Medical Allocation, Admission and Care

While medical care is not included as part of the Neonatal HITH model, Neonatal HITH nursing staff have direct access to Neonatal Medical Staff in Newborn Services for advice and support until May 2019. Following this date, the Rapid Admission Clinic Registrar will be allocated as the HITH triage and contact person if medical consultation is required during business hours Tuesday – Friday. Outside of these hours, the Newborn Services Neonatal Registrar will manage these calls.

### 5.2 Nursing Allocation, Admission and Care

Neonatal HITH currently has the capacity to provide nursing review visits six days a week Sunday - Friday. The Neonatal HITH Nurse is allocated up to seven Neonatal HITH home visits each day depending on acuity and distance travelled between visits.

Visit frequency is determined according to clinical need. In situations where demand exceeds daily capacity, the Neonatal HITH Nurse prioritises visits according to patient need. Each HITH visit is allocated 45 minutes actual patient care time. If extra time is needed the reason must be clearly documented in the case notes and in the patient electronic BOS record. Travel and documentation time is in addition to the 45 minutes of patient care and is considered when planning staffing requirements.

During the course of the visit the nurse/midwife will provide clinical care as required. This may include but is not limited to:

- Weight
- Physical assessment
- Blood tests
- Replacement of nasogastric tubes
- Providing general newborn education
- Development and adjustment of feeding plans in collaboration with the parents/carers
- Referrals as required
- Discuss ongoing management plan with parents/carers/guardians and provide written plan where appropriate
- Offer the opportunity to discuss ongoing care/medication/need for re-admission

Neonatal HITH patients have access to pathology. In hours, families may present to the Pathology Collection Centre on the Ground Floor of the JKWC, or the Neonatal HITH nurse can obtain capillary blood samples and transport them to Pathology services. Blood samples collected by the Neonatal HITH nurse are labelled appropriately as per the [Pathology Specimen Labelling Procedure OP-PS6.1.2](#), placed into biohazard bags and then into a cooler bag before being transported into Dorevitch Pathology at Western Health as soon as possible. The Dorevitch Pathology Service located at Werribee Mercy Hospital will also accept appropriately labelled samples for processing and ensure results are available at WH when this facility is more geographically convenient.

Access to Allied Health services is not available within the Neonatal HITH Service. These services may be utilised after discharge from Neonatal HITH and require service referrals to be made by a member of the medical or nursing team. Patients may be referred internally to Allied Health by completing a BOSSnet e-referral. Eligibility for referral to the Paediatric and Neonatal Specialist Clinics (PNSC) and the Paediatric Allied Health (PAH) Service is detailed in the *Paediatric and Neonatal Specialist Clinics and Paediatric Allied Health Operating Guideline (2019)*.

Access to WH Interpreter services is available via phone for Neonatal HITH staff and families.

### 5.3 Nursing Documentation

On completion of each HITH visit, it is the responsibility of the nurse/midwife to:

- Report any concerns or issues to the Nurse/Midwife in charge in Newborn Services
- Document all care
- Complete visit on BOS
- Enter in BOS the next planned contact or discharge from HITH
- Print BOS visit (one copy) list and two copies of the iPM list for the next day
- Clean, check and restock all equipment
- Patients who are discharged from Neonatal HITH need to be discharged from iPM
- Enter discharge details in the Electronic Medical Record (EMR)

Currently all care is documented on the *Neonatal HITH Care/Observation Chart* and/or the [Inpatient Progress Notes AD215](#), and on BOS.

The [Patient Clinical Records Documentation Procedure](#) details the requirements for documentation in the patient clinical record, both electronic and paper based, across WH.

### 5.4 Clinical Handover

Patients to be admitted to Neonatal HITH are discussed with the Nurse/Midwife in Charge in Newborn Services or the Neonatal HITH nurse to ascertain service capacity and provide details to enable admission into the service as per Figure 1.

### 5.5 Responding to the Deteriorating Patient

In an emergency the parent/carer/guardian/visiting Neonatal HITH Nurse will call 000 for an ambulance.

If the neonate requires non-emergency medical consultation, attention or readmission, the Neonatal HITH Nurse telephones the NIC of the referring ward and/or the Neonatal Registrar allocated to triage HITH patients or Neonatologist to discuss the management plan or readmission.

Neonatal HITH patients requiring readmission should be discussed with the Access Coordinator/After Hours Administrator (AHA). Parents should be instructed to present to the SH Emergency Department (ED) so their neonate can be assessed and triaged appropriately, and the Access Coordinator/AHA then consulted to assist with bed allocation.

## 6. Discharge

Discharge occurs when the following criteria are met:

- Weight Gain (consistently gaining weight with discharge weight close to 2.3 kg)
- Feeding performance results in consistent weight gain
- Parents able to provide any additional care needs capably

### 6.1 Clinical Handover

Prior to discharge, a Maternal and Child Health Nurse (MCHN) referral must be completed by emailing a referral to the relevant council (via the central booking MCHN office within the relevant municipality).

A medical discharge summary is written in the EMR on the day a neonate is transferred to Neonatal HITH. If readmission is required, a second medical discharge summary will be written in the EMR when the neonate is discharged following this subsequent readmission.

## 7. Follow-Up

Table 2 outlines the various follow up options available for patients who have been discharged from the Neonatal HITH Service.

Service	Description	Referral Process
<b>Rapid Review Outpatient Clinic</b>	Newborn Services inpatients are able to be reviewed post discharge by the Paediatric Registrar through access to the Rapid Review Clinic	Process under review
<b>Neonatal Medical Follow-up Clinic</b>	Referral usually made at time of discharge from Newborn Services to Neonatal HITH	iPM or EMR
<b>Neonatal Allied Health Ambulatory Clinics</b>	Neonatal Allied Health offers outpatient consultation for certain conditions. Refer to Paediatric and Neonatal Specialist Clinics & Paediatric Allied Health Operating Guideline for specific details on services provided	BOSSNet E-referral
<b>Local GP</b>	All patients are encouraged to organise a follow up appointment with their local GP	Details included in GP discharge summary
<b>External Hospital and Community Services</b>	Following discharge, referrals are often made to Medical and Allied Health Services either in specialist hospitals or in the community	Varies according to individual service
<b>MCHN</b>	All patients are referred to MCHN services within their local council area	Phone referral by HITH Service. Newborn Services should also have emailed a referral on transfer to HITH

Table 2: Neonatal HITH Post Discharge Follow Up Options



## 8. Infrastructure

### 8.1 Patient Care Environment

The patient care environment is the patient's home or other suitable environment, such the Rapid Review Clinic.

### 8.2 Neonatal HITH Equipment

The following is a list of equipment that is required to support the provision of care within Neonatal HITH:

- Scales
- Educational material for parents
- Thermometer
- Stethoscope
- Blood sampling equipment
- Specimen collection biohazard bags and cooler bag for transport
- Alcohol wipes
- Hand hygiene equipment
- Neonatal HITH car
- Neonatal HITH mobile phone

No resuscitation equipment is carried by the Neonatal HITH Nurse or available within the Neonatal HITH car. In the case of urgent care being required, emergency services are called on 000.

### 8.3 Staff Facilities

Neonatal HITH staff utilise the range of staff facilities available on Level Five of the JKWC, Newborn Services.

## 9. Workforce

Clinical care in Neonatal HITH is delivered by a nursing workforce from within Newborn Services, as outlined in Table 3 below.

Role	Headcount	FTE
<b>Nursing</b>		
Newborn Services Nurse Unit Manager (NUM) non-clinical	1	1.0
Neonatal HITH Associate NUM (ANUM)	2	1.4

Table 3: Neonatal HITH Clinical Staffing

During periods of planned leave, cover is provided by a pool of registered nurses from Newborn Services who have been orientated to the Neonatal HITH service. Unplanned leave is not covered in most instances.

## 9.1 Mandatory Competencies

All WH staff members are required to undertake annual mandatory training as outlined in the [Mandatory Training Procedure](#). Table 4 outlines the mandatory competencies for staff working in Neonatal HITH.

	Nursing
Fire and Emergency Procedures	✓
General Manual Handling	✓
Back 4 Life Patient Handling	✓
Hand Hygiene	✓
Aseptic and No Touch Technique (ANTT)	✓
Basic Life Support and Defibrillation (BLSD) or ALS	✓
Neonatal and Pediatric Life Support (NLS and PLS)	✓
Prevention and Management of Occupational Violence	✓
Breastfeeding	✓

Table 4: Mandatory competencies for nursing and midwifery staff working in Neonatal HITH

## 10. Education and Training

### 10.1 Service-based Education

Neonatal HITH members of staff are encouraged to access education that is provided within Newborn Services – this mainly involves education that is organised by individual disciplines within Newborn Services through team meetings, observation and formal education sessions.

### 10.2 Research

The Neonatal HITH Service is not actively involved in any research activities at present.

## 11. Policies, Procedures and Guidelines

WH has a wide range of policies, procedures and guidelines all available to staff on the WH intranet for access by the Neonatal HITH Nurse. Please see the [Policies, Procedures and Forms](#) page of the intranet for a complete list of the documents owned by and relevant to W&C Services.

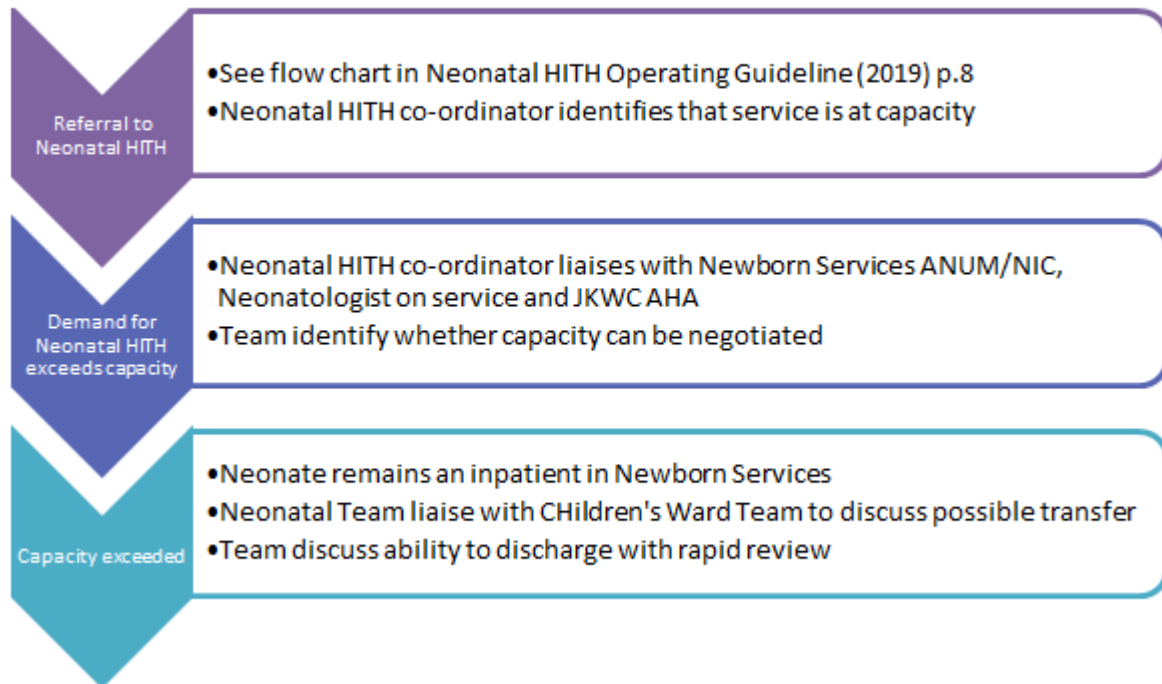
Policies and procedures specific and relevant to Neonatal HITH service are listed in Table 5.

PPG Name	Code
<a href="#">Neonatal Hospital in the Home (HITH) .docx</a>	DP-CC5.2.1
<a href="#">Late Preterm or Low Birth Weight Neonates on the Postnatal Wards</a>	DP-CC2.1.11
<a href="#">Paediatric Referrals and Admission to Special Care Nursery (SCN)</a>	DP-CC1.1.1
<a href="#">Jaundice in Newborn Babies equal to or greater than 35 Weeks Gestation</a>	DG-CC2.6.2
<a href="#">Neonatal and Paediatric Oro or Nasogastric Tube Insertion and Management</a>	DP-CC2.2.2
<a href="#">Administration Of Sucrose as an Analgesic in Infants</a>	OP-PS1.1.S3
<a href="#">Paediatric Patients Discharged with Home Oxygen</a>	DG-CC5.1.2
<a href="#">Ensuring Optimal Breastfeeding Support for Pregnant Women and New Mothers</a>	DP-CC2.1.17
<a href="#">Clinical Management of Family Violence</a>	OP-AP1.1.1
<a href="#">Occupational Health and Safety Procedures for Home Visit</a>	OP-SE1.4.4
<a href="#">Vulnerable Babies, Children and Young Persons At Risk of Harm and Placement of a Child at WH by Child Protection</a>	OP-CC2.1.11

Table 5: Policies and procedures specific and relevant to Neonatal HITH service



## 12. Appendix 1 – Escalation pathway for Neonatal HITH demand exceeding capacity



## 13. Appendix 2 - Stakeholders Consulted

Stakeholder Name	Title	v2.0 Feedback
Adele Mollo	Divisional Director, W&C Services	Yes
Glyn Teale	Clinical Services Director, W&C Services	Yes
Maree Comeadow	Operations Manager – Gynaecology, Paediatrics and Neonates	Yes
Barbara Capewell	Neonatal HITH Co-ordinator	Yes
Melissa Dodsworth	Unit Manager, Newborn Services	Yes
Martin Wright	Head of Paediatrics	Yes
Thao Lu	Neonatologist	Yes
Rosalyn Pszczola	Neonatologist	Yes
Gregory Woodhead	Neonatologist	Yes
Penny Kee	Neonatologist	Yes
Julia Firth	Operations Manager, Medical Imaging & Pathology Contract	Yes
Angus Campbell	Allied Health JKWC Project Officer	Yes
Nicole Keogh	Quality Improvement Partner, W&C Services	No
Marieta Pring	Lactation Consultant	No
Phuong Nguyen	Pharmacy JKWC Project Officer	Yes
Tim Henderson	JKWC Logistics Support Manager, Health Support Services	No
Wendy Watson	Director of Nursing & Midwifery, Sunshine Hospital	Yes
Janelle Parsons	Clinical Practice Improvement Specialist - Neonates	Yes
Kathy Macdonald	Chief Radiographer, Sunshine Hospital	No
Julia Blackshaw	Allied Health Director	No
Grace Crowe	Maternity Services Development Lead	Yes
Dianne Pattison	Paediatric Services Development Lead	Yes
Erin Casey	JKWC Operational Support Manager	Yes