Western Health

# Joan Kirner Women's and Children's

# Division of Women's and Children's Services & Division of Perioperative and Critical Care Services

# Maternity Surgical Services

# Operating Guideline

**Version 4.0 – FINAL REVISED**

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# Maternity Surgical Services

## Operating Guideline

### Document Control

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# Abbreviations and Acronyms

| | |
|---|---|
| **ADT** | Admission, Discharge, Transfer |
| **ALS** | Advanced Life Support |
| **ANTT** | Aseptic Non-Touch Technique |
| **BLS** | Basic Life Support |
| **BLSD** | Basic Life Support and Defibrillation |
| **BOS** | Birthing Outcomes System |
| **CSSD** | Central Sterile Services Department |
| **DHHS** | Department of Health and Human Services |
| **DMR** | Digital Medical Record |
| **DOSA** | Day of Surgery Admissions |
| **ED** | Emergency Department |
| **EMR** | Electronic Medical Record |
| **GP** | General Practitioner |
| **HMO** | Hospital Medical Officer |
| **ICU** | Intensive Care Unit |
| **JKWC** | Joan Kirner Women's and Children's |
| **LUSCS** | Lower Uterine Caesarean Section |
| **MAR** | Medication Administration Record |
| **NIC** | Nurse-In-Charge |
| **NLS** | Neonatal Life Support |
| **O&G** | Obstetrics and Gynaecology |
| **P&CC** | Perioperative and Critical Care |
| **PAC** | Pre-Admission Clinic |
| **PACU** | Post-Anaesthetic Care Unit |
| **PLS** | Paediatric Life Support |
| **PPG** | Policy, Procedure, Guideline |
| **PPH** | Post-Partum Haemorrhage |
| **PSA** | Patient Services Assistant |
| **RANZCOG** | Royal Australian and New Zealand College of Obstetricians and Gynaecologists |
| **SH** | Sunshine Hospital |
| **SMS** | Short Message Service |
| **TCI** | To Come In |
| **W&C** | Women's and Children's |
| **WH** | Western Health |

# 1. Introduction

## 1.1 Purpose

The purpose of this Operating Guideline is to profile Maternity Surgical Services and to provide full detail of the day to day operation of the service.

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

## 1.2 Intended Audience

This Operating Guideline is intended for the following audience:

| Who | Utilisation |
|---|---|
| • P&CC Leadership & Management Team<br>• W&C Leadership & Management Team<br>• W&C Services Operational Projects Team | • To be used as a baseline plan and overall tool to define what and how Maternity Surgical Services operate. |
| • Frontline staff | • To provide frontline staff, particularly those who are new to the service, with a detailed understanding of the day to day operation of Maternity Surgical Services. |

Table 1: Intended audience

## 1.3 Related Documents

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

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

- *Maternity Services Model of Care (2019)*
- *Birthing Operating Guideline (2019)*
- *Maternal Fetal Medicine, Obstetric Ultrasound & Genetics Operating Guideline (2019)*
- *Maternity Assessment Centre Operating Guideline (2019)*
- *Maternity Specialist Clinics (including Shared Midwifery Care and Immunisation) Operating Guideline (2019)*
- *Maternity Wards & Domiciliary Operating Guideline (2019)*
- *Midwifery Group Practice Operating Guideline (2019)*

# 2. Service Overview

Western Health's Maternity Surgical Services provide a comprehensive range of elective and emergency obstetric surgical services for childbearing and postnatal women. Maternity Surgical Services are provided jointly by the Division of Perioperative and Critical Care (P&CC) Services and the Division of Women's and Children's (W&C) Services.

## 2.1 Services Provided

- Cervical cerclage/removal of cerclage
- Dilatation and curettage
- Elective lower uterine segment caesarean section (LUSCS), including one dedicated theatre list per week for DIAMOND clinic women (women with extreme obesity and/or obesity with medical co-morbidities)
- Emergency caesarean section
- Examination under anaesthetic
- Management of post-partum haemorrhage (PPH)
- Manual removal of placenta
- Repair of perineal tears
- Return to theatre post-surgery (e.g. bleed, wound breakdown, secondary PPH)
- Trial of instrumental birth

## 2.2 Services not Provided

- LUSCS with a known morbidly adherent placenta accreta/increta/percreta

## 2.3 Patient Profile

Maternity Surgical Services provide general and specialist obstetric surgical services for women in the antenatal, intrapartum and post-partum periods.

## 2.4 Capacity

Maternity Surgical Services provide 35 elective theatre sessions per four week theatre cycle. Theatre Four in the JKWC is predominantly utilised for elective maternity surgery. In addition, one theatre (Theatre Three) is permanently allocated as a dedicated obstetric emergency theatre 24-hours per day, seven days per week.

Each elective theatre session is four hours:

- AM session: 08:30 – 12:30
- PM session: 13:30 – 17:30

The number of women booked per elective maternity theatre session ranges between two to three according to the complexity and length of each procedure.

## 2.5 Location and Operating Hours

All elective and emergency Maternity Surgical Services are provided in the JKWC Operating Theatre Suite located on Level Two of the JKWC at Sunshine Hospital (SH).

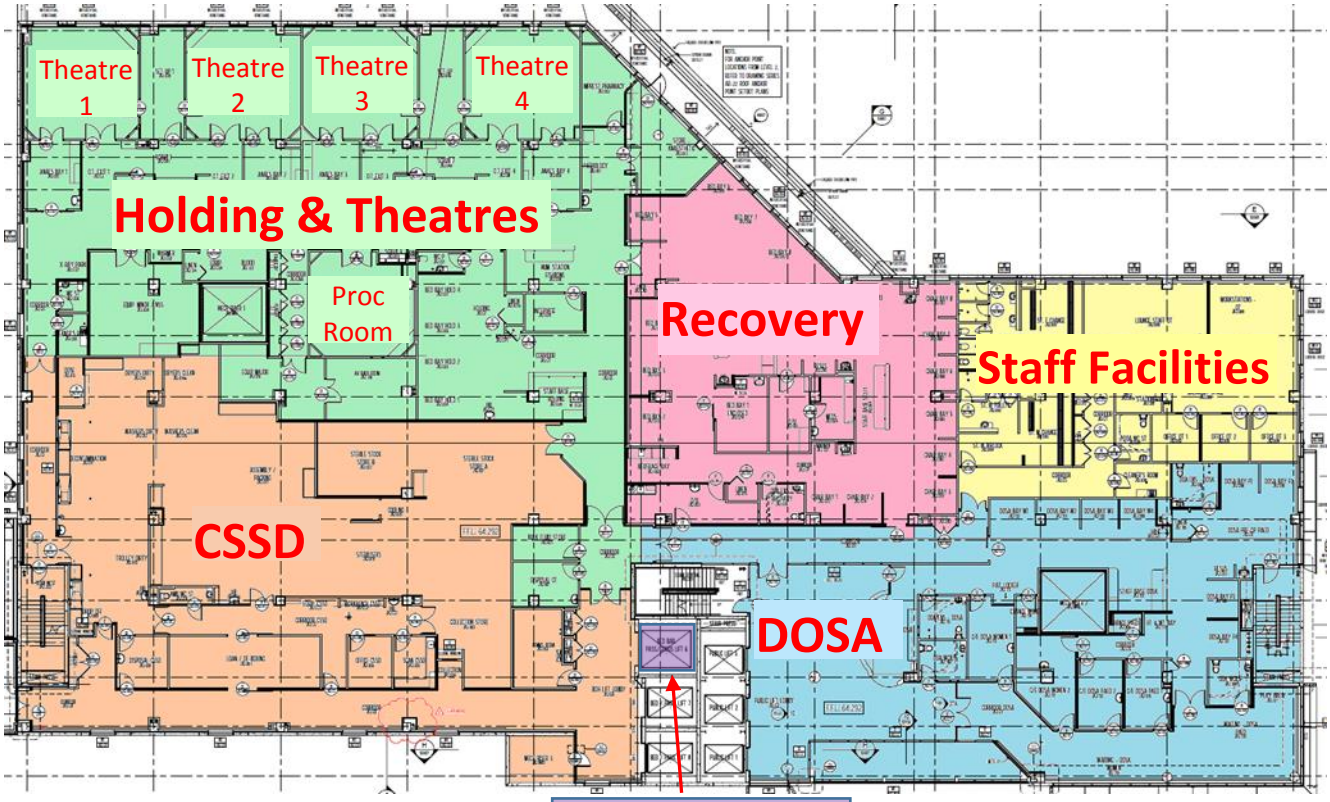



Figure 1: JKWC Level Two

Elective Maternity Surgical Services are provided between 08:00 – 17:30 Monday to Friday, while emergency services are provided 24 hours per day, seven days per week.

# 3. Service Delivery

## 3.1 Referral

### 3.1.1 Referral Sources

Referral for maternity surgery at WH must be made by a senior medical practitioner, namely a Registrar or Consultant.

Referrals for elective caesarean are accepted from the following internal sources:

- Maternity Assessment Centre (MAC)
- Maternity Specialist Clinics
- Maternity Wards

Referrals for emergency maternity surgery are received from the following internal sources:

- Birthing
- Emergency Department (ED)
- MAC
- Maternity Wards

### 3.1.2 Referral Forms

The *Request for Elective Admission (AD 32)* is used for all elective surgery referrals at WH. The *AD 32* contains key information required for referral, as detailed in the Department of Health and Human Services' (DHHS) Elective Surgery Access Policy (2015).

In addition to the *AD 32*, the *Elective Caesarean Section Booking and Clinical Information Sheet* is to be completed for all elective caesarean referrals. The *Elective Caesarean Section Booking and Clinical Information Sheet* contains the following additional key information for referral:

- Date range requested for elective caesarean section
- Number of previous caesarean sections
- Placenta location
- Primary indication for elective caesarean section
- Requirement for a Consultant O&G in theatre
- Requirement for a Paediatrician in theatre
- Requirement for Cell Saver
- Requirement for corticosteroids prior to the caesarean section
- Risk factors/clinical conditions to note
- Body mass index and weight at booking of elective surgery

There is no referral form for emergency surgery. Consent for all emergency surgery procedures is recorded on the *Consent Form (AD 34)*, with the exception of Alert Caesareans where a written consent is not required.

### 3.1.3 Referral Process

#### *Elective Surgery*

The Elective Caesarean Section Booking Procedure details the required steps to make a referral for elective caesarean. The referring medical practitioner will utilise a pre-prepared *Elective Caesarean Referral Pack* when making the referral. Each pack contains the following:

- *Blood Product Request Form (Extended Group Form)*
- *Care Following Caesarean Section Patient Information Sheet*
- *Elective Caesarean Section Booking and Clinical Information Sheet*
- *Patient Information - Blood Test Collection for Caesarean Section*
- RANZCOG 'Caesarean Section- A Guide for Women'
- *Request for Elective Admission (AD 32)*

The *Request for Elective Admission (AD 32)* and *Elective Caesarean Section Booking and Clinical Information Sheet* must include adequate documentation of surgical risks, in addition to any specific pre-operative requirements, such as early admission for pre-operative betamethasone (steroid) administration for diabetic women requiring corticosteroid administration prior to undergoing elective caesarean. The Elective Caesarean Section Booking Procedure details the process for arranging pre-operative corticosteroid administration.

In addition to the *Request for Elective Admission (AD 32)* and *Elective Caesarean Section Booking and Clinical Information Sheet, t*he referring medical practitioner must complete a pathology request at the time of referral for FBE or Group and Hold/Cross Match, in accordance with the following:

- Rhesus negative or has a positive antibody screen: bloods must be taken the day before surgery and must be taken at either the JKWC or SH main pathology collection centre
- Rhesus positive and a negative antibody screen: bloods can be taken up to seven days prior to the day of surgery at any Dorevitch collection centre

A cross match is required for women with known antibodies or if there is the expectation that the woman is at significant risk of post-partum haemorrhage (PPH).

Risk factors for PPH and requirement for Cell Saver should be identified and discussed with the woman at the time of referral, as well as documented appropriately in the Birthing Outcomes System (BOS) Management Plan as per the Post-Partum Haemorrhage Guideline. Requirement for Cell Saver is also documented on the *Elective Caesarean Section Booking and Clinical Information Sheet* and booked by the Surgical Liaison Nurse – Gynaecology, LUSCS, and Paediatric Surgery. On the day prior to the procedure, the JKWC Theatre Nurse in Charge (NIC) will confirm with the external company that Cell Saver has been arranged.

Requirement for Pre-Admission Clinic (PAC) anaesthetic review for elective maternity surgery cases is determined by the referrer in accordance with the indications listed in the Antenatal Referral of Women to Anaesthesia and Pain Medicine Procedure. The referrer will complete a *Consultation Request Form (AD 219)* and the Clinic Associate Midwifery Unit Manager will email the request to the PAC triage email group (WH – PAC Triage), who then forwards the referral to the responsible Consultant Anaesthetist for action.

Referrals from the Maternity Specialist Clinics, including the *Elective Caesarean Section Booking and Clinical Information* Sheet and the *Request for Elective Admission* (*AD 32),* are placed into the elective surgery referrals tray in Women's Clinic where they collected at the completion of each clinic by the Surgical Liaison Nurse – Gynaecology, LUSCS, and Paediatric Surgery. If clinics run overtime, the Surgical Liaison Nurse will collect the referrals the following business day. The Surgical Liaison Nurse can be contacted on 0401 154 538.

*Email:* electivebookings@wh.org.au

*Fax:* 8345 6205

The Surgical Liaison Nurse will triage and forward all referrals to the SH Elective Booking Clerk for completion of clerical registration and addition to the elective surgery waiting list on iPM.

Where referrals are sent directly to the Elective Booking Office, the Booking Office will forward an electronic copy of the referral to the Surgical Liaison Nurse for triage and appropriate allocation for surgery.

Referral for elective surgery must be received within three working days after completion of the referral consent form.

### *Emergency Surgery*

In time critical situations where an emergency caesarean section is required immediately, a Code Green is called in accordance with the Code Green (Medical Emergency Code) Procedure (currently under review). Figure 2 includes details of the activation criteria, location and response team members for a Code Green.

A member of the treating medical team will dial 444 and state "respond Code Green", including the location of the code, following which the switchboard staff will respond with the following actions:

- Code Green Team notification via group page. Membership of team detailed in Figure 2.
- Overhead page

## ACTIVATION CRITERIA

May include:

- Cord prolapse
- Signs of severe fetal compromise

## ACTIVATION LOCATION

- Maternity Services (inpatient or outpatient)
- Pregnant in-patients in non-maternity locations
- Emergency Department

## POTENTIAL DISPOSITION LOCATION (during / post event)

- Birthing suite
- Operating Theatre
- Intensive Care Unit
- Remain in location

| CODE GREEN<br>COMPULSORY RESPONSE TEAM | TRAINING REQUIREMENTS FOR CODE GREEN<br>ADULT | PAED | NEONATE |
|---|---|---|---|
| T/L Obstetric Senior Registrar | BLSD | N/A | Advanced Neoresus®≠ |
| Neonatology Registrar | BLSD | N/A | Advanced Neoresus®≠ |
| Clinical Support Midwife 24/7 | PROMPT, BLSD | N/A | Advanced Neoresus®≠ |
| Joan Kirner Anaesthetic Registrar (TO THEATRE) | Adult Advanced Life Support | N/A | Advanced Neoresus®≠ |
| PSA | BLSD | N/A | N/A |
| **ADDITIONAL STAFF NOTIFIED** | | | |
| Home Unit (Response required by HMO, Registrar &/or Consultant) | BLSD | N/A | Dependent on treating team |
| Neonatal & Obstetric Consultants[1] | BLSD | N/A | Advanced Neoresus®≠ |
| Midwife in Charge | PROMPT, BLSD | N/A | Advanced Neoresus®≠ |
| Theatre Nurse Manager or Nurse in Charge, Obstetric Emergency Theatre Scrub Scouts (x2), Obstetric Emergency Theatre Anaesthetic Nurse, Obstetric Emergency Theatre Anaesthetic Technician | BLSD | N/A | N/A |

*≠ or equivalent training program TL - Team Leader*

[1] *Must be notified and Consultant to be called out of hours/weekend*

Figure 2: Code Green activation and response team members

The JKWC Theatre NIC is responsible for coordinating the theatre team and ensuring the dedicated obstetric emergency theatre (Theatre Three) is set up and ready for the woman's arrival. The treating midwife has responsibility for set up of the neonatal resuscitaire in the obstetric emergency theatre.

All other unplanned/emergency obstetric surgical cases, including those to be done in hours on elective theatre lists, must be discussed with the JKWC Theatre NIC and the JKWC Anaesthetist in Charge. Discussion will include the relative urgency of the case, so that the case can be prioritised and scheduled.

The referring medical practitioner must then enter the woman's details onto 'Simon', the electronic emergency theatre booking system.

## 3.2 Triage & Registration

### 3.2.1 Clinical Triage

All elective surgery referrals are triaged by the referring medical practitioner into one of three urgency categories as described in the (DHHS) Elective Surgery Access Policy (2015). There are a number of listed procedures that are not ESIS-reportable and do not fit into the described categories as their waiting time cannot be controlled. This list includes elective caesarean sections, which are all documented as Category Two on the iPM waitlist.

There is a guide for triaging the urgency of all emergency procedures in Simon, the emergency theatre booking system, however this guide is not specific to maternity. A WH written guideline specific for urgency categorisation of obstetric emergency surgery is currently under development. The categorisation listed in Simon includes the following categories:

- Cat 1/2 Emergency Cases- all hours
- Cat 3/4 Emergency Cases- all hours
- Cat 5/6 Emergency Cases-all hours

### 3.2.2 Clerical Registration

The Elective Booking Office, located at Footscray Hospital, manages the clerical registration of all elective surgery referrals across all WH sites in accordance with WH's Elective Surgery Access Policy.

Accepted referrals are registered electronically on the elective surgery waiting list on iPM by the Elective Booking Office staff.

### 3.2.3 Pre-Admission Clinic (PAC) Triage

The PAC Nurses review and triage all elective maternity anaesthetic PAC referrals for PAC requirements, prior to review by the Consultant Anaesthetist. The Consultant Anaesthetist will notify the PAC triage staff of the outcome of their assessment and the PAC triage staff will then notify the referrer of the outcome.

Options for PAC for maternity patients include:

- Face to face PAC (note that there is currently no dedicated Obstetric PAC session)
- File review
- No PAC
- Phone call

### 3.2.4 Scheduling of Elective Maternity Surgery

As per the Elective Caesarean Booking Procedure, uncomplicated elective caesareans should be scheduled approximately one week prior to the agreed due date, with elective caesarean prior to 39 weeks requiring Consultant or Senior Registrar approval.

Elective maternity theatre lists are generated by the Surgical Liaison Nurse. The Surgical Liaison Nurse must ensure the most appropriate number and mix of cases are scheduled for each theatre session, taking into consideration the following factors:

- Complexity of each procedure
- Expected duration of each procedure
- Staffing skill mix and specialty requirements

There is an expectation that three elective caesarean sections are booked per elective caesarean theatre list

The Surgical Liaison Nurse records the planned theatre lists in a live Excel database which is shared with the Elective Booking Office. The Elective Booking Office are responsible for formally booking the surgery onto iPM and sending a confirmation to come in (TCI) letter to the woman.

## 3.3 Service Provision

### 3.3.1 Pre-Admission Clinic (PAC)

There are currently no dedicated maternity PAC sessions at WH. If face to face anaesthetic review is required pre-operatively, the woman will be booked to attend an anaesthetic PAC clinic at the SH PAC which is located in the basement of Building A.

### 3.3.2 Patient Arrival

The majority of women presenting for elective maternity surgery are admitted on the day of surgery, via the JKWC Operating Theatre Suite Day of Surgery Admissions (DOSA). Refer to Appendix 2 for maternity surgery patient flows.

Women who are scheduled on an AM maternity theatre list are asked to arrive at 07:00 while women who are scheduled on a PM maternity theatre list are asked to arrive at 12:00.

There is a dedicated women's waiting area located adjacent to the JKWC DOSA reception.

On occasion, women may be admitted to one of the maternity inpatient wards in the days prior to surgery if pre-operative stabilisation or treatment is required. Diabetic women are admitted at the discretion of the treating team, typically two days however up to seven days, prior to elective caesarean section for administration of corticosteroids and blood sugar monitoring. Planned direct inpatient admissions are typically asked to arrive at 14:00 on the day of their admission and will be taken directly from the ward to the Holding Bay on the day of surgery.

Emergency surgery cases are taken directly to the operating theatre, or may be taken via the Holding Bay pending the urgency of the case and theatre availability. Emergency access to the operating theatres is via the dedicated back of house clinical emergency lift. Refer to Appendix 2 for maternity emergency surgery patient flows.

### 3.3.3 Clerical Admission

Elective surgery clerical admissions are completed by the JKWC DOSA ward clerk during hours, or by the Admission, Discharge and Transfer (ADT) clerk, located in the ED, out of hours.

The clerical admission involves the following steps:

1. Review of the TCI letter including confirmation of the surgical procedure and what to bring on the day of surgery for the baby
2. Confirmation of the woman's registration details, including personal details, next of kin contact data, Medicare details and referring doctor data
3. The Ward Clerk will print the woman's surgical consent form from BOSSnet which will accompany the woman to theatre.

Emergency surgery clerical admissions require the referring medical practitioner to enter the woman's details onto Simon. This registration on Simon is followed by a clerical transfer of the patient to a theatre by the Theatre NIC.

### 3.3.4 Clinical Services

*Midwifery Pre-Operative Assessment – Elective Caesarean*

The dedicated Caesarean Midwife role is based in the JKWC DOSA and is responsible for pre-operative assessment of women presenting for elective maternity surgery, in addition to intra-operative and post-operative midwifery care of the newborn baby post elective caesarean.

There are Caesarean Midwife shifts each day Monday to Friday; 07:00 – 15:30 and 10:00 – 18:30.

A midwifery pre-operative assessment is completed by the Caesarean Midwife in one of the DOSA consult rooms. The midwifery pre-operative assessment involves the following steps:

Day prior to elective caesarean:

- Checking and printing the BOS Summary, including latest ultrasound results, the birthing management plan, and any specific requirements for the birth (e.g. cord blood)
- Confirming completion of pre-operative Group and Hold/FBE and the need for cross match

Day of elective caesarean:

- Confirmation of the woman's name and identifiers to apply identification bands
- Checking allergies and alerts in the Electronic Medical Record (EMR) and applying allergy bands if indicated
- Completion of paper-based admission documentation including:
    - *Birthing & Maternity Risk Screening Assessment Tool (WHAD 82.1B)*
    - *Clinical Bedside Checklist – PCC/Birthing/Maternity*
    - *Education Plan (WHAD 129)*
    - *Infectious Diseases Admission Screening (WHAD 24)*
    - *Multi-Day Anaesthetic Record (AD 263)* – complete medical history
    - *Obstetric Daily Fluid Balance Chart (AD 117.1)*
    - *Passport to Surgery (AD 250)*
    - *Postnatal Clinical Pathway (WHAD 128)* – commence

- Recording of allergies and ordering of medications on the EMR
- Discussion of expected discharge day and time (usually on day three post-op no later than 10am as per the *Discharge – Maternity Guideline (currently in draft form)*)
- Physical assessment, including observations, abdominal palpation, fetal heart auscultation
- Set up ultrasound machine ready for medical practitioner to perform ultrasound to confirm presentation if indication for caesarean section is breech presentation
- Pre-operative medication administration
- Weighing the woman

The woman will then get changed ready to await her surgical procedure in one of the DOSA chair bays. The woman's partner or support person is able to remain with the woman throughout the pre-operative assessment and is also provided with theatre clothes to change into to ensure they are able to accompany the woman into theatre.

The Caesarean Midwife is also responsible for accompanying the woman to theatre and contacting the Paediatric Registrar to attend theatre if paediatric attendance is required. Requirement for paediatric attendance at birth is determined in accordance with the Paediatric Referrals and Admission to Special Care Nursery Procedure.

### *Medical Pre-Operative Assessment*

The team responsible for the elective LUSCS list are expected to review the indication for surgery and the *Elective Caesarean Section Booking and Clinical Information Sheet* the day prior to the planned elective caesarean.

All maternity surgical patients undergo a pre-operative review on the day of surgery by the medical practitioner who will be performing the surgery. The medical practitioner will complete an ultrasound assessment on women undergoing elective caesarean section for breech presentation.

The medical consultation usually takes place in the DOSA consult room for elective cases, or the Holding Bay or theatre for emergency cases.

### *Anaesthetic Pre-Operative Assessment*

All maternity surgical patients are reviewed on the day of surgery pre-operatively by the treating anaesthetist. The anaesthetic pre-operative consultation usually takes place in the DOSA consult room for elective cases, or the Holding Bay or theatre for emergency cases.

The anaesthetist will review the woman's current and past medical history, obstetric history, social history and safety for anaesthesia, and will also discuss the plans for anaesthesia with the woman.

Women undergoing elective surgery will also have their health questionnaire checklist reviewed as part of the anaesthetic pre-operative consult.

### *Nursing Pre-Operative Assessment*

For elective caesareans, the Caesarean Midwife will escort the woman and her partner/support person from the DOSA chair bay to the Holding Bay following the midwifery, medical and anaesthetic assessments in DOSA. The woman's care is formally handed over to the Holding Bay Nurse who is responsible for checking and confirming the woman's documentation, including completion of the theatre section of the woman's *Passport to Surgery (AD 250)*. The partner will remain in the Holding Bay area until spinal anaesthetic has been inserted and will then be escorted to re-join the woman in the operating theatre.

In the instance of a caesarean requiring a general anaesthetic, the woman's partner or support person is escorted to the holding bay for the duration of the surgery. This is due to the high risk nature of a general anaesthetic.

### *Anaesthetic Sign In*

The Anaesthetic Sign In is completed on the back of the *Passport to Surgery (AD 250)* by a medical officer within the anaesthetic team.

The steps required to be undertaken during the Anaesthetic Sign In are outlined in the Correct Patient, Correct Procedure, Correct Site (Time Out) Procedure.

The Caesarean Midwife is responsible for documenting fetal heart rate recording within the theatre and requirement for Paediatrician presence.

Anaesthetic induction takes place within the operating theatre for all maternity surgery cases.

### *Team Time Out*

Prior to the commencement of any surgical procedure, the Scout Nurse, with the support of the surgeon, calls a Team Time Out following anaesthetic induction and prior to patient positioning and skin preparation in accordance with the Correct Patient, Correct Procedure, Correct Site (Time Out) Procedure.

The Team Time Out is signed by the Scout Nurse or the surgeon/proceduralist on the back of the *Passport to Surgery (AD 250)* once all checks have been completed.

### *Surgery Commencement*

To facilitate efficient management of the operating theatres, the expected 'knife to skin' time is 08:30 for AM theatre sessions and 13:30 for PM theatre sessions.

If a Paediatric Registrar is required to be present for a birth, surgery will not commence until the Paediatric Registrar is present in the theatre. Escalation is to the Paediatric Consultant if the Registrar is unable to attend.

### *Medical Imaging*

In emergency situations a radiographer may be requested to attend the operating theatre to operate the use of a mobile image intensifier (II) during maternity surgical cases.

If an intra-operative ultrasound is required, an accredited or credentialed sonographer may be requested to attend the theatre.

### *Pathology*

Requests for pathology tests will be completed via the EMR in accordance with the Zero Tolerance with Incomplete Request Form Documentation – Pathology and Medical Imaging Procedure. Staff can find quick reference guides in relation to pathology ordering and collection on the Live EMR website.

Any specimens collected during the surgical procedure requiring pathology testing will be transported to the Pathology Laboratory, located on Level One of Building B. Transportation of specimens from the JKWC Operating Theatre Suite to the Pathology Laboratory is via pneumatic tube or in person. Examples of samples which will be required to be transported in person rather than via the PTS include:

1. The sample is too large for the pneumatic tube system (PTS)
2. The sample is in formalin
3. The sample may be affected by agitation, for example CSF samples

Urgent blood requests must be telephoned to the hospital transfusion laboratory. The requestor, typically the Anaesthetist, must clearly state the degree of urgency for the provision of blood and blood products, in accordance with the Requesting Blood and Blood Products Procedure.

Critical bleeding and massive transfusion referrals involve a phone call from the Anaesthetist to the Consultant Haematologist and are made in accordance with the Critical Bleeding and Massive Transfusion Procedure.

Processes for delivery of urgent time critical and routine blood products to the JKWC Operating Theatre Suite are awaiting confirmation following testing and validation of the JKWC pneumatic tube system.

Point of care testing is delivered in accordance with the Implementation and Management of Point of Care Testing Devices Procedure

### *Cord Blood Collection*

The Collection of Cord Blood at Birth to Measure Cord pH Levels Procedure details the process for collection of cord blood specimen from babies at birth, as well as the additional equipment required for each resuscitaire and operating theatre to support cord blood collection.

If cord blood is to be collected, the Scrub Nurse or Caesarean Midwife is responsible for obtaining the cord blood specimen and blood samples. The specimen and samples are then sent to the Pathology Laboratory by the Scrub Nurse via the pneumatic tube system.

### *Team Sign Out*

On completion of the surgical procedure, the entire surgical team completes a Team Sign Out in accordance with the Correct Patient, Correct Procedure, Correct Site (Time Out) Procedure.

The Team Sign Out is to be signed by the Scout Nurse/Registered Nurse on the back of the *Passport to Surgery (AD 250)* once all checks have been completed.

### *Skin to Skin Contact*

Immediately after birth, a baby ID band with the mother's details is confirmed with the mother and attached to the newborn's ankle or wrist by the Caesarean Midwife in accordance with the Patient Identification Procedure.

Skin to skin contact between the mother and the newborn is offered and supported, in accordance with the mother's wishes, within the theatre by the Caesarean Midwife. Communication with the responsible anaesthetist is required to ensure the clinical situation is appropriate and that the physical safety of the newborn is assured. The Caesarean Midwife retains sole responsibility for observation of the newborn in accordance with established practice.

The Caesarean Midwife is also responsible for escorting the newborn and the partner/support person to recovery to commence the neonatal assessment. Skin to skin contact will be offered and supported.

### *Post-Anaesthetic Care Unit (PACU) / Stage One Recovery*

Upon completion of the surgical procedure, the majority of women are transferred to the Post-Anaesthetic Care Unit (PACU), also referred to as Stage One recovery. On occasion, women may be transferred directly to the Intensive Care Unit (ICU) if they are intubated and respiratory support is required.

The nursing ratio for PACU/Stage One is 1:1 for patients who are unconscious or have other intensive nursing requirements such as significant pain issues. All other patients in PACU/Stage One are managed with a nursing ratio of 1:2, with the PACU/Stage One Nurse responsible for the woman's post-operative care.

In addition to the establishment of skin to sin contact, the Caesarean Midwife is responsible for the newborn's post-operative care needs, with the newborn to remain within the midwife's sight at all times. The newborn assessment includes weight, length and head circumference measurements. Newborn vital signs are to be monitored and recorded as per the Newborn Victorian Children's Tool for Observation and Response (ViCTOR) Procedure.

If the newborn requires admission to the Newborn Services Unit, located on Level Five, they will be transferred with a Caesarean Midwife and Paediatric Registrar escort and handover of care will be provided to the Newborn Services team.

The discharge criteria for PACU/Stage One is a Modified Aldrete Score of ≥ 9 or ≥ 8 for regional blocks, minimal vaginal blood loss, fundus firm and contracted below umbilicus, wound clean and dry with nil ooze, and all observations within normal parameters on the *Post Anaesthetic Care Record (Maternity) (WHAD 259.4)*. For women who have undergone a general anaesthetic, pain must also be controlled with PCA commenced. Discharge is led by the PACU/Stage One Nurse. Women who do not meet this criteria but are considered ready for discharge require the treating consultant/registrar to write and approve a modification.

Prior to transfer to the ward, a fundal, wound and blood loss assessment is undertaken by the midwife receiving the woman's care in conjunction with the PACU nurse. The medication administration record (MAR) on the EMR should also be reviewed to ensure all required medications have been charted correctly.

### *Transfer to the Maternity Ward*

On discharge from PACU/Stage One, the woman and her newborn are transferred to one of the JKWC Maternity Wards, located on Levels Seven and Eight, with a Maternity Ward Midwife and PSA escort. The Caesarean Midwife will provide a verbal handover to the Maternity Ward Midwife prior to transfer.

If the newborn requires admission to the Newborn Services Unit, located on Level Five, they will be transferred with a Caesar Midwife and Paediatric Registrar escort and handover of care will be provided to the Newborn Services team.

Newborn medications, including hepatitis B vaccination and vitamin K, are prescribed and administered on the Maternity Ward or the Newborn Services Unit.

### 3.3.5 Documentation

Clinical documentation within the operating theatres and recovery is completed using a combination of the EMR and paper-based forms. Wounds, dressings, surgical drain tubes, catheters, fluid balance charts, invasive lines and medications are all documented directly into the EMR. All other clinical documentation remains on paper and theatre records are scanned into the Digital Medical Record (DMR) upon completion of the episode. A guide to the location of documents for the EMR can be found in the 'What Goes Where?' document on the WH intranet.

Theatre details including all time stamps, staff names, procedure, diathermy, local anaesthetic, specimens, dressings, drain tubes, position, preps used, complications, specimens, CMBS codes, prostheses, and the theatre count sheet are also documented in iPM.

A typical maternity surgical case will include the following documentation, which is bundled into a 'multi-day surgical pack':

- *Caesarean Section Operation Notes (AD 253.2)*
- *Centro-Neuraxial Block Observation Chart (Trial) (WHAD 139)* for completion by the Midwife post-operatively on the Maternity Ward
- *Inpatient Progress Notes (AD 215)* to be completed by the Caesarean Midwife
- *Intravenous and Subcutaneous Fluid Order Form (AD 285)*
- *Multi-Day Anaesthesia Record (AD 263)*
- *Newborn Resuscitation Checklist (WHAD 167.1)*
- *Passport to Surgery (AD 250)*
- *Perioperative Count Sheet (AD 262)*
- *Peripheral Intravenous Record (AD 378)*
- *Post-Natal Clinical Pathway (WHAD 128)*

The MAR is completed in the EMR.

The final set of observations in PACU/Stage One recovery are recorded on the *Post Anaesthetic Care Record (Maternity) (WHAD 259.4)* to ensure they are within acceptable parameters prior to transfer to the Maternity Ward.

The Caesarean Midwife is responsible for the following documentation:

- Documentation of cord blood sampling in the maternal birth record and/or baby record
- *Inpatient Progress Notes (AD 215)* *Neonatal Assessment & Variation (AD 171)*
- *Newborn Registration & Admission Form* (form to be provided to the Maternity Ward Clerk for processing on return to the ward post-operatively)
- *Newborn Resuscitation Checklist (WHAD 167.1)*. Note that the Paediatric Registrar/Consultant will add comments and a management plan to this form if a resus has been attended
- *Victorian Children's Tool for Observation and Response (Birth Suite/PN) (VBPN 010)*

### 3.4 Communication with Patients, Referrers and GPs

Any post-operative surgical and anaesthetic orders can be found on the *Operation Report and Post-Operative Orders (AD 253)* form. Anaesthetic orders can also be found on the back of the *Multi-Day Anaesthetic Record (AD 263)*.

A discharge letter is completed by the treating inpatient team for all women on discharge from the Maternity Inpatient Wards following maternity surgery. The discharge letter is sent to both the woman and her GP.

### 3.5 Discharge and Follow-Up

Following maternity surgery, women are transferred from (PACU)/Stage One recovery to the Maternity Inpatient Wards, where they receive ongoing care by their treating inpatient team (according to their Colour My Care team allocation). All women post caesarean section receive a day one post-operative review on the Maternity Inpatient Ward by the treating medical team and a review by the anaesthesia including pain management service (AMPS) team, in addition to a discharge review by the treating medical team.

Follow-up options post discharge from the Maternity Inpatient Wards are detailed in the *Maternity Inpatient Service Operating Guideline (2019).*

## 4. Clinical Support Services

### 4.1 Anaesthesia including Acute Pain Management Service (APMS)

Anaesthesia and APMS provide skilled anaesthesia and analgesia services to women undergoing anaesthesia and surgical procedures. Timely pre-operative assessment by APMS, either as an outpatient in PAC or as an inpatient, facilitates the provision of advice for management of women with complex pain.

Management of complex peri-operative pain may require individual, or in combination, regional and systemic analgesia, including but not confined to patient controlled analgesia (PCA), opioid and ketamine infusions, oral analgesia and regional analgesia.

Analgesia strategies commenced intra-operatively, continue into the PACU environment and into the inpatient ward as clinically indicated. Complex strategies may require intensive APMS nursing and medical intervention and APMS supervision over a longer duration than routine care. Day case procedures generally require less complex analgesia.

APMS also supervises the policy, procedure and guideline (PPG) process for routine perioperative analgesia.

## 5. Non-Clinical Support Services

### 5.1 Central Sterile Services Department (CSSD)

The JKWC CSSD, located adjacent to the Operating Theatre Suite on Level Two of the JKWC, is responsible for cleaning, disinfecting and sterilising reusable medical and surgical instruments.

All items sterilised in the CSSD are tracked via a computerised tracking system, ScanCare.

The JKWC CSSD also stores and distributes single use medical devices and reusable linen to clinical departments within JKWC.

## 5.2 Clerical Services

The JKWC Operating Theatre Suite is supported by both admission clerks and DOSA clerks. Details of the role description and hours of these clerk roles can be found in the *W&C Surgical Services Model of Care (2019)*.

## 5.3 Environmental Services

The JKWC Operating Theatre Suite is supported by both PSAs and cleaners. Details of the role description and hours of these environmental service roles can be found in the *W&C Surgical Services Model of Care (2019)*.

## 5.4 Food Services

Details of the food services supporting the JKWC Operating Theatre Suite can be found in the *W&C Surgical Services Model of Care (2019)*.

## 5.5 Language Services

Interpreters should be used for women undergoing maternity surgery whenever key information is being communicated or discussed. On-site face to face interpreting services are provided by in-house interpreters between the hours of 08:30 – 17:00, Monday to Friday.

Outside these hours, and for languages not provided by in-house interpreting services, telephone interpreting services can be used. Telephone interpreters are to be used for women requiring an interpreter who are first on an AM theatre list to ensure knife to skin time can commence at 08:30.

When a face to face interpreter is essential out of hours, such as in an emergency, an interpreter can be requested through the same number as the telephone interpreting services.

The Language Services page on the WH Intranet provides details on how to book interpreting services both in and out of hours.

## 5.6 Theatre Technicians

The Theatre Technicians are responsible for the preparation and terminal cleaning of the operating room and equipment. Key responsibilities of the Theatre Technicians include:

- Assisting in the preparation of the patient prior to surgery
- Assisting medical, midwifery and nursing staff within the theatre
- Assisting with patient procedures as required
- Patient transportation
- Terminal cleaning of the operating theatre and preparing the theatre ready for the next patient

# 6. Infrastructure

## 6.1 Patient Care Environment

The JKWC Operating Theatre Suite is located on Level Two. The suite has a dedicated admissions area (DOSA), including a reception, separate women's and children's waiting spaces and children's play area, and patient bathroom facilities.

### 6.1.1 Clinical Treatment Areas

The JKWC Operating Theatre Suite has the following clinical treatment spaces which are used by Maternity Surgical Services:

- DOSA chair bays
- DOSA consult rooms
- Holding Bay
- Operating Theatres
- PACU/Stage One Recovery bed bays

### 6.1.2 Non-Clinical Areas

The JKWC Operating Theatre Suite contains the following non-clinical areas which are used by Maternity Surgical Services:

- Anaesthetic store room
- Clean utility and medication room
- Dirty utility room
- Equipment storeroom
- Sterile stock store room

## 6.2 Staff Facilities

Staff working in Maternity Surgical Services can access the Level Two staff lounge, staff change room, lockers and toilets as required. These facilities are available via swipe card access.

Dedicated offices and shared office and workstation facilities are available on Level Two. In addition, staff can access shared workstation facilities on Level Four, the Clinical Directorate.

# 7. Workforce

Clinical care in Maternity Surgical Services is delivered by a multidisciplinary workforce that is staffed from both the Division of P&CC (Nursing, Anaesthetics, and Theatre Technician staff) and the Division of W&C Services (Medical staff, Midwives, Paediatricians).

The JKWC is a teaching hospital so there may also be students present within a theatre session and, on occasion, staff from the ED or ICU attending for airway management training.

If Cell Saver has been identified as being required pre-operatively, an external Cell Saver representative from *Cell Saving Perfusion Resources* will attend theatre to set up the machine/equipment. In emergency cases where Cell Saver is required, the Theatre Technician will set up the machine/equipment.

Table 2 outlines the Medical, Nursing, Midwifery, Anaesthetic and Theatre Technician workforce requirements for typical maternity surgical cases.

| Role | Division | Elective Caesarean Section | Other Elective Case | Emergency Caesarean Section/ Trial of Instrumental | Other Emergency Case |
|---|---|---|---|---|---|

| Role | Division | Elective Caesarean Section | Other Elective Case | Emergency Caesarean Section/ Trial of Instrumental | Other Emergency Case |
|---|---|---|---|---|---|
| Anaesthetic Consultant | P&CC | 1 | 1 | 1 | 1 |
| Anaesthetic Nurse | P&CC | 1 | 1 | 1 | 1 |
| Caesar Midwife** | W&C | 1-2 | 0 | 1 | 0 |
| O&G Consultant* | W&C | 0 – 1 | 0 – 1 | 0 – 1 | 0 – 2 |
| O&G HMO | W&C | 0 – 1 | 0 – 1 | 0 – 1 | 0 – 1 |
| O&G Registrar | W&C | 0 – 1 | 0 – 1 | 0-1 | 0 – 1 |
| PACU/Recovery Nurse | P&CC | 1 | 1 | 1 | 1 |
| Paediatrician | W&C | 0-1* | 0 | 0-1* | 0 |
| Neonatal Resus Nurse | W&C | 0-1* | 0 | 0 -1* | 0 |
| Scout Nurse | P&CC | 1 | 1 | 1 | 1 |
| Scrub Nurse | P&CC | 1 | 1 | 1 | 1 |
| Theatre Technician | P&CC | 1 | 1 | 1 | 1 |
| Trainee Anaesthetist | P&CC | 0 – 1 | 0 – 1 | 1 | 1 |

Table 2: Typical staffing within the operating theatre for a maternity surgical case

* Paediatric and neonatal resus nurse presence required for high risk cases

**Two Caesarean Midwives are required to be present for twin births. There are two Caesarean Midwives rostered each weekday to service both the AM and PM elective caesarean theatre lists.

## 7.1 Mandatory Competencies

All WH staff are required to undertake annual mandatory training as outlined in the Mandatory Training Procedure. Table 3 outlines the mandatory competencies for staff working in Maternity Surgical Services.

| | Nursing & Midwifery | Senior Medical Staff | Registrar & HMOs | Anaesth. | Clinical Support Staff |
|---|---|---|---|---|---|
| Aseptic and No Touch Technique (ANTT) | ✓ | ✓ | ✓ | ✓ | × |
| Back 4 Life Patient Handling | ✓ | × | × | ✓ | ✓ |
| Basic Life Support (BLS) | × | × | × | × | ✓ |
| Basic Life Support and Defibrillation (BLSD) or Advanced Life Support (ALS) | ✓ | ✓ | ✓ | ✓ | × |
| Blood Components and Blood Transfusion Practice | ✓ | × | ✓ | × | × |
| Epidural* | ✓ | × | × | × | × |
| Fire and Emergency Procedures | ✓ | ✓ | ✓ | ✓ | ✓ |
| General Manual Handling | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hand Hygiene | ✓ | ✓ | ✓ | ✓ | ✓ |
| Neonatal and Paediatric Life Support (NLS and PLS) | ✓** | ✓ | ✓ | ✓ | × |
| Prevention and Management of Occupational Violence | ✓ | ✓ | ✓ | ✓ | ✓ |

Table 3: Mandatory competencies for staff working in Maternity Surgical Services

*Scrub Scout Nurses do not undertake epidural competency

**Midwives only

# 8. Education & Training

## 8.1 Service-Based Education

An education session for all JKWC theatre nursing staff is held every four weeks (alternating fortnightly with a staff meeting) on a Friday at 08:00. The education session is led by the Theatre Nurse Unit Manager and the Theatre Nurse Educators.

In addition, the Division of P&CC holds a quarterly study day for all staff within the Division. On these days there are no elective theatre lists held to encourage maximum participation from staff across all four WH theatre sites (emergency theatres remain operational on these days). Staff education delivered at each study day is divided into streams, for example, anaesthetics, endoscopy and PACU.

All other education for staff working in Maternity Surgical Services is organised by individual disciplines through observation, informal and formal education sessions.

## 8.2 Research

There is currently no dedicated research or academic roles within Maternity Surgical Services and no dedicated obstetric representation in the Department of Surgery. Research within Maternity Surgical Services is primarily opportunistic, in collaboration with existing research groups, and is generally undertaken by staff with a dual role within an associated University or an external health service.

# 9. Policies, Procedures & Guidelines and Forms

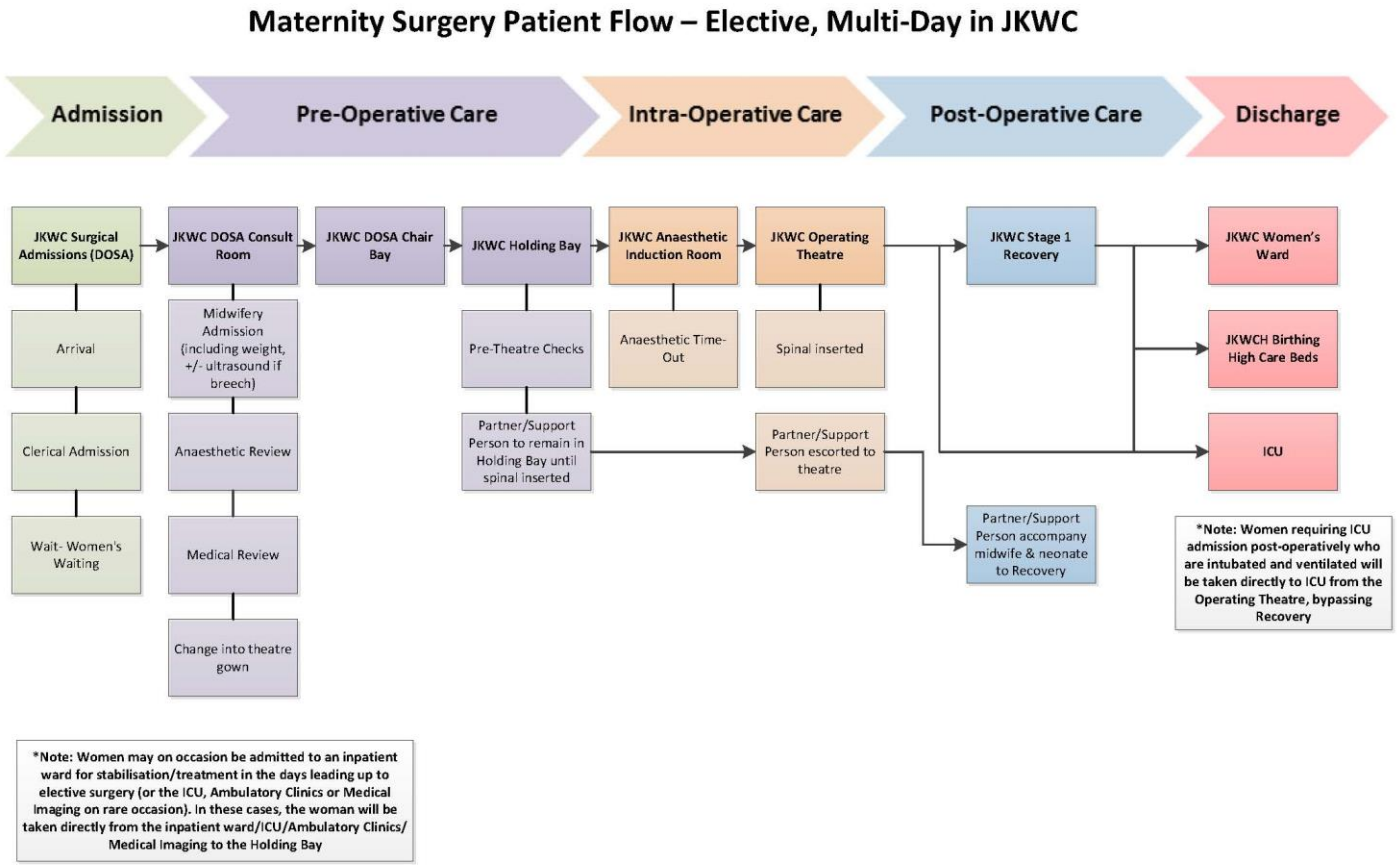
Table 4 lists the WH PPGs that are pertinent to Maternity Surgical Services.

| Title | Policy, Procedure or Guideline |
|---|---|
| Alert Caesarean (Medical Emergency Code) | Procedure |
| Assisted Vaginal Birth – Vacuum or Forceps | Procedure |
| Attendance of Support Person During Caesarean Section | Procedure |
| Collection of Cord Blood at Birth to Measure Cord pH Levels | Procedure |
| Correct Patient, Correct Procedure, Correct Site (Time Out) Procedure | Procedure |
| Critical Bleeding and Massive Transfusion Procedure | Procedure |
| Elective Caesarean Section Booking | Guideline |
| Ensuring Optimal Breastfeeding Support for Pregnant Women and New Mothers | Procedure |
| Fasting Procedure for all Patients Requiring Anaesthesia | Procedure |
| Implementation and Management of Point of Care Testing Devices Procedure | Procedure |
| Obstetric Alert (Obstetric Alert Code) | Procedure |
| Obstetric Epidural Analgesia | Procedure |
| Pathology Specimen Labelling Procedure | Procedure |
| Postnatal Repair of Perineum | Procedure |
| Post-Partum Haemorrhage | Guideline |
| Requesting Blood and Blood Products Procedure | Procedure |
| Working with Children Check | Procedure |
| Zero Tolerance with Incomplete Request Form Documentation – Pathology and Medical Imaging Procedure | Procedure |

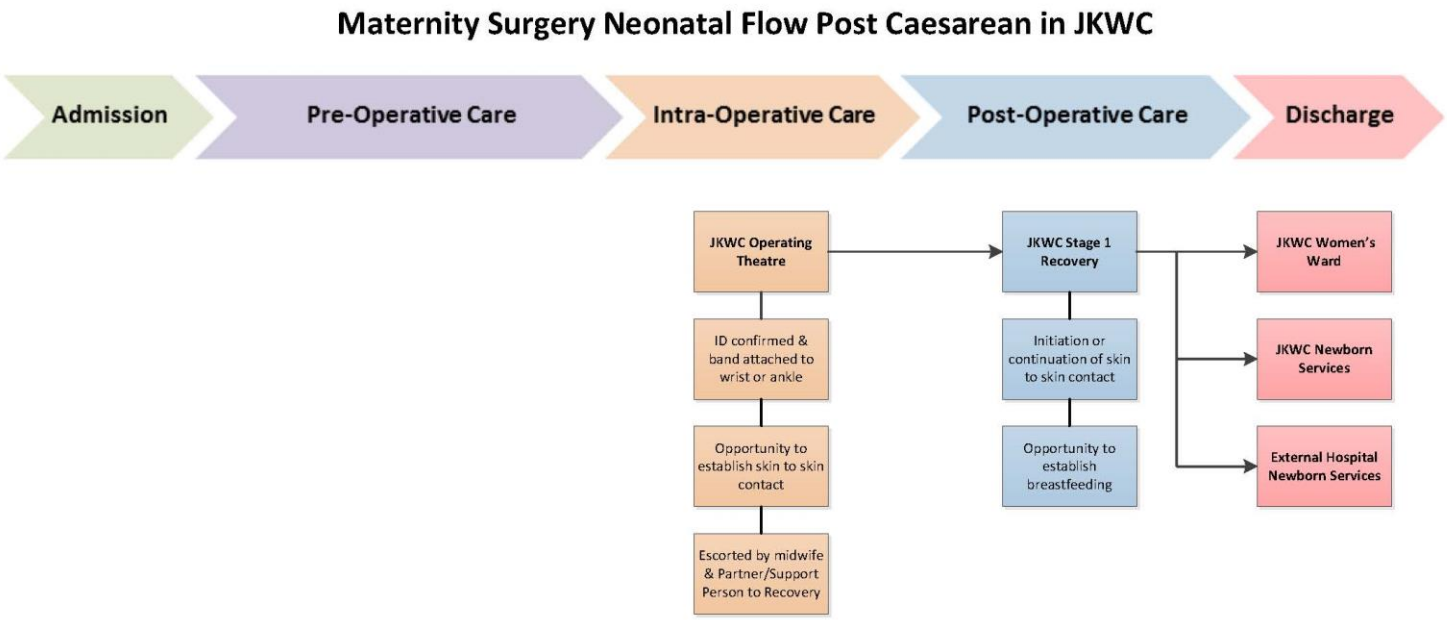
Table 4: Maternity Surgical Services PPGs

# 10. Appendix 1 – Patient Flow Diagrams

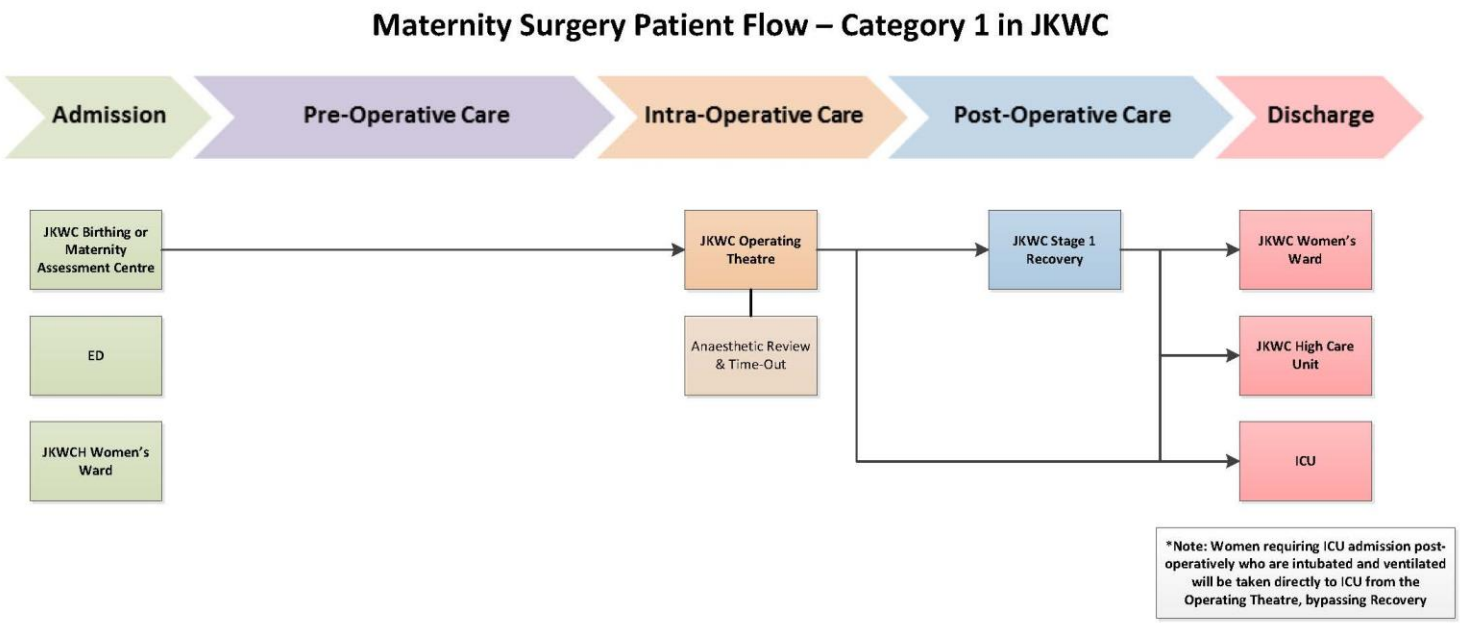
## 10.1 Patient Flow - Elective Maternity Surgery



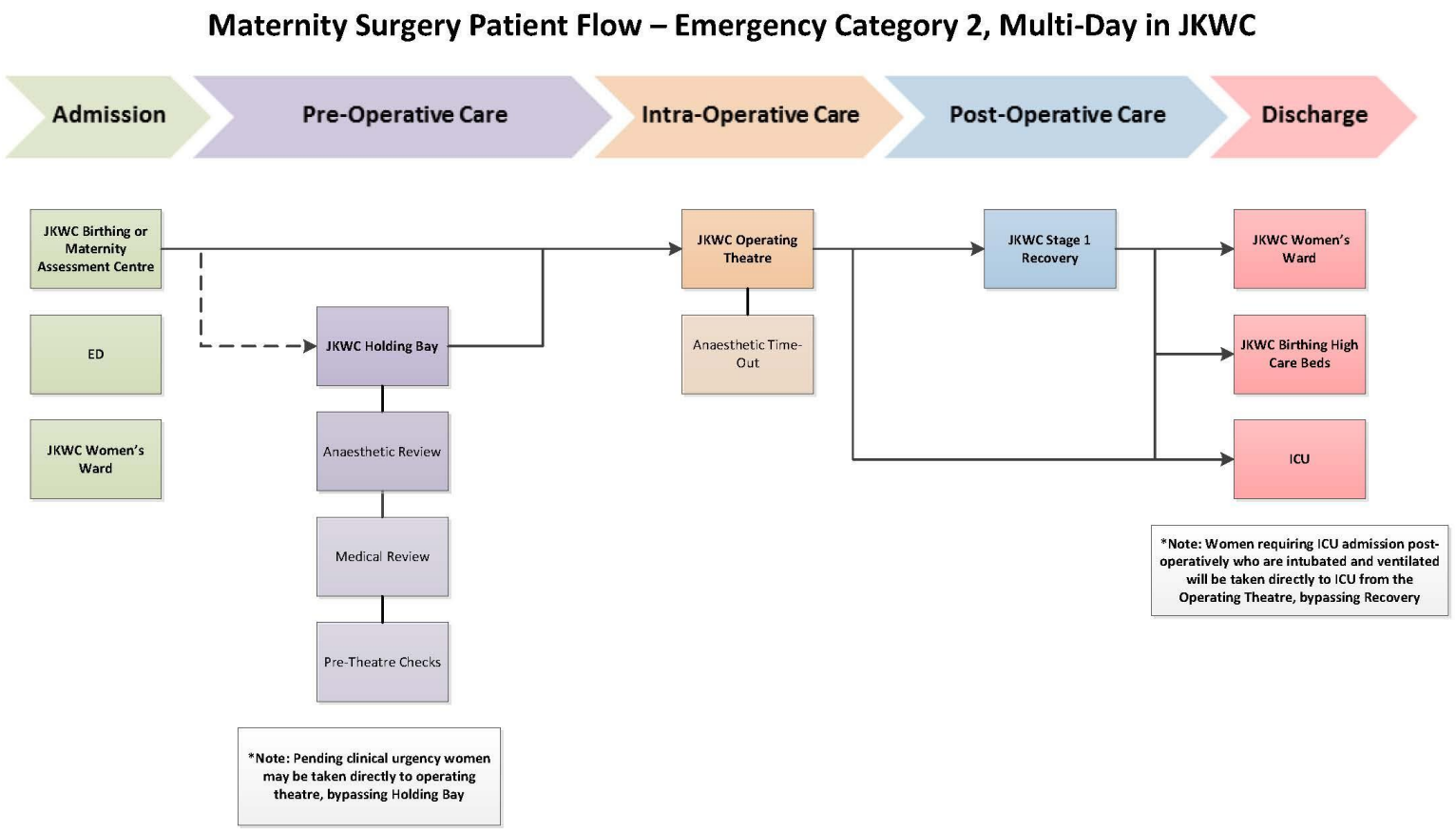
## 10.2 Patient Flow – Neonatal Pathway Post Caesarean



## 10.3 Patient Flow – Emergency Category One Maternity Surgery



## 10.4 Patient Flow – Emergency Category Two Maternity Surgery



## 11. Appendix 3 – Stakeholders Consulted

| Stakeholder Name | Title | v1.0 Feedback | v2.0 Feedback |
|---|---|---|---|
| Adele Mollo | Divisional Director, W&C Services | No | Yes |
| Andrew Jeffreys | Clinical Services Director, P&CC Services | Yes | Yes |
| Angelique Monello | Surgical Liaison Nurse, Obstetrics, Gynaecology and Paediatric Surgery | No | Yes |
| Angus Campbell | Allied Health JKWC Project Officer | Yes | Yes |
| Bronwen Evans | Head of Unit, Acute Pain Medicine | No | Yes |
| Bronwyn Menadue | Perioperative Services Manager | Yes | Yes |
| Chris Harris | Orthopaedic Surgeon | No | No |
| Claire Culley | Divisional Director, P&CC Services | No | No |
| Clare Myers | Acting Head of Unit, Gynaecology Services | No | No |
| David Bramley | Deputy Director, Anaesthesia & Pain Medicine | Yes | Yes |
| Gaby VanEssen | Anaesthetist | No | No |
| Glyn Teale | Clinical Services Director, W&C Services | Yes | Yes |
| Grace Crowe | Maternity Services Development Lead | Yes | Yes |
| Jeff Aquino | Elective Surgery Services Manager | No | No |
| Jill Woods | Pain Management Nurse Practitioner | No | Yes |
| Julia Firth | Operations Manager, Medical Imaging & Pathology Contract | No | Yes |
| Karen Tricker | Nurse Unit Manager, CSSD | No | No |
| Kath MacDonald | Chief Radiographer, Sunshine Hospital | Yes | Yes |
| Lauren DeLuca | Consultant O&G/Divisional Clinical Safety & Quality Lead, W&C Services | No | Yes |
| Lisa Smith | Operations Manager, Maternity Services | Yes | Yes |
| Liz Hessian | Deputy Director, Anaesthetics | No | Yes |
| Maree Comeadow | Operations Manager, Gynaecology, Paediatrics & Neonates | No | No |
| Martin Steyn | Theatre Technician | No | No |
| Mel Shackell | Manager, Physiotherapy | Yes | Yes |
| Michael Nightingale | Paediatric General Surgeon | No | No |
| Nicole Keogh | Quality Improvement Partner, W&C Services | No | No |
| Nicole Sheridan | Anaesthetist | No | No |
| Oliver Daly | Consultant Urogynaecologist & Obstetrician | Yes | No |
| Phuong Nguyen | Pharmacy JKWC Project Officer | No | Yes |
| Simone Cooley | Nurse Unit Manager, Sunshine Operating Theatres | Yes | Yes |
| Tim Henderson | JKWC Logistics Support Manager, Health Support Services | Yes | Yes |
| Tim Price | Consultant, Ear, Nose & Throat (ENT)/Otolaryngology Surgery | No | No |
| Wendy Watson | Director of Nursing & Midwifery, Sunshine Hospital | Yes | Yes |