Team Name: Regional Obstetrical Team Team Lead: Regional Director - Acute Care Approved by: Executive Director - Mid	Reference Number: CLI.5810.PL.006 Program Area: Obstetrics Policy Section: General
Issue Date: January 22, 2019 Review Date: Revision Date:	Subject: Twin Delivery

POLICY SUBJECT:
Twin Delivery

PURPOSE:
The purpose is:

- To assist in determining whether a non-emergent twin pregnancy is appropriate at designated delivering sites in Southern Health-Santé Sud.
- To assist in the proper management of a patient undergoing a planned twin delivery.

BOARD POLICY REFERENCE:
Executive Limitations (EL-01) Global Executive Restraint & Risk Management
Executive Limitations (EL-02) Treatment of Clients

POLICY:
Delivery of uncomplicated term twins can be accomplished safely in a level 1b hospital (as per the Provincial Council for Maternal and Child Health, 2011) provided adequate support and where an obstetrician is available. By providing twin deliveries, Southern Health-Santé Sud meets the Society of Obstetricians and Gynaecologist of Canada's recommendation of providing high quality maternity care as close to home as possible.

A mandatory referral to an obstetrician is required for all potential twin deliveries **upon diagnosis of a twin gestation.**

Availability of all necessary staff is confirmed upon the patients' admission to the hospital.

To be a candidate for elective/scheduled delivery (either by vaginal or cesarean section) at a delivering site in Southern Health-Santé Sud the following must be met:

- Uncomplicated diamniotic/dichorionic twin gestation and
- Gestational age greater than or equal to 36 weeks.

DEFINITIONS:

Amnion – inner most fetal membrane that encloses the embryo (contains amniotic fluid and embryo). Together with the chorion makes up the amniotic sac.

Chorion – outermost fetal membrane that surrounds the embryo (this layer forms the fetal part of the placenta). Together with the amnion makes up the amniotic sac.

Designated delivering site – A delivering site with a minimum level of 1b designation who has an obstetrician with twin delivery privileges. The site has approved the planned delivery of term uncomplicated twins, either by vaginal delivery or cesarean section. The site must have the ability to perform cord gases at the time of delivery.

Double Set Up: When the operating room is set up for both a vaginal delivery and a cesarean section, including opening all bundles and equipment for both.

- The rational for a double set up is that in the event a crash cesarean section is required it can be accomplished without any delay.
- All staff needed for a vaginal delivery as well as a cesarean section are required to be present in the operating room at the time of delivery.

Types of twins:

- **Dichorionic/Diamniotic** – twins who have either two separate or fused placentas each with their own amniotic sac. These twins do not share the same circulation. These types of twins have the lowest mortality and risk associated with twin pregnancies.
- **Monochorionic/Monoamniotic–** twins who share the chorionic and amniotic membranes as well as the same placenta and circulation. These types of twins have the highest mortality and risk associated with twin pregnancies.
- **Monochorionic/Diamniotic –** Twins who share a chorionic membrane but have separate amniotic membranes. They share the placenta and circulation. There is an increased risk with this type of twin pregnancy.

PROCEDURE:

Indications for Vaginal Delivery:

- Vaginal delivery is the delivery of choice unless contraindicated.
- To be a candidate for a trial of vaginal delivery, the following criteria are met:
    - Twin A is a cephalic presentation,
    - Twin B is not significantly larger than twin A (less than 20% difference in estimated fetal weight or less than 20 millimeter difference in abdominal circumference by most recent fetal assessment) and
    - Estimated fetal weight for each twin is between 1500 - 4000 grams.

- A trial of labour after cesarean (TOLAC) is not a contraindication in the setting of one previous lower segment cesarean section with an appropriate inter-delivery interval of 18 months or more. This is decided on a case by case basis by the obstetrician.
- If deemed to be an appropriate candidate for a trial of vaginal delivery, delivery outcomes may include:
    - Vaginal Delivery of twin A in cephalic presentation, followed by a vaginal delivery of twin B in either cephalic presentation or breech extraction, which may include an internal podalic version or an external cephalic version.
    - Vaginal delivery of twin A in cephalic presentation, followed by a cesarean section for twin B in the event of an emergency (this could include a cord prolapse, abnormal fetal heart rate etc.).
    - An assisted vaginal delivery for either twin with vacuum or forceps is considered for obstetrical indications.
- Induction of labour between 37-38 weeks gestation is considered in the absence of spontaneous labour.
- Oxytocin augmentation is considered for suspected labour dystocia.

Contraindications for vaginal delivery: These twins are delivered via cesarean section:

- Any contraindication to a vaginal birth (i.e. placenta previa, transverse lie, vertical or T uterine incision, history of uterine rupture, more than one previous cesarean sections etc.)
- Twin A is in a non-cephalic presentation.
- Significant growth discrepancy between twin A and twin B.
- The weight of either twin is below 1500 or greater than 4000 grams on the most recent fetal assessment.

Prenatally:

- The obstetrician provides direction and support to the primary practitioner regarding the ongoing model of care, timing of fetal assessments and fetal monitoring, and referral to the tertiary care centre if necessary. The obstetrician determines the anticipated mode of delivery. Care of the patient is transferred to the obstetrician when the patient is in labour.
- The obstetrical ward is notified of all potential twin deliveries. Copies of all fetal assessments are provided, in advance, to the obstetrical ward in order to be available for delivery. Records are made available at 28 weeks gestation and onward.
- The obstetrician refers the patient to anesthesia between 30-34 weeks.

On admission to the obstetrical ward:

- Notify consulting obstetrician and primary obstetrical care provider. If the consulting obstetrician is unavailable, contact another local obstetrician to determine availability. If a local obstetrician is unavailable, consultation to an Obstetrician in a tertiary care centre is mandatory. The patient is transferred to a tertiary centre unless unsafe to do so. If unable to transfer and an obstetrician is unavailable, delivery is facilitated by cesarean section.

- Ensure all personnel required are available. Staff are to be placed on call as necessary**:**
    - Obstetrician,
    - Labour nurse,
    - Anesthetist,
    - Circulating nurse,
    - Scrub nurse,
    - Surgical assist,
    - Two neonatal resuscitation teams. Each team, consisting of a primary care provider and a nurse both trained in neonatal resuscitation, is assigned to each infant and
    - Respiratory therapist, if available.
- Admit as per routine admission procedure.
- Type and screen and CBC is required upon admission.
- Initiate a large bore IV (18 gauge or larger).
- Take maternal vital signs as per Routine Care of the Labouring Patient (CLI.5810.SG.003).
- Confirm fetal lie and presentation of each twin with a bedside ultrasound performed by the obstetrician. Recent fetal assessment is reviewed to assess fetal sizes.
- Initiate continuous electronic fetal monitoring of both twins.
- Notify respiratory therapist, if available.
- Notify Anesthesia and operating room staff of patient admission.

During labour:

- Continuous electronic fetal monitoring is required for both twins. Consider application of a scalp electrode on Twin A once the membranes have ruptured. Fetal well-being is assessed as per Fetal Health Surveillance in Labour (CLI.5810.SG.002)
- Take maternal vital signs as per Routine Care of the Labouring Patient (CLI.5810.SG.003).
- Clear fluid or nil per os (NPO) as per obstetrician's orders.
- Epidural is recommended for analgesia. This also helps to facilitate delivery of twin B and to expedite emergency delivery if required.
- Once the patient is nearing second stage, the patient is moved to the operating room for a double set up delivery and on call staff are notified.
- Pre label all paperwork/specimen containers with 'Twin A'and 'Twin B' accordingly.

Prior to and during delivery:

- Ensure all required staff are present in the operating room.
- Ensure two infant warmers are present and set up in the operating room.
- Ensure the portable ultrasound is available in the operating room.
- Ensure external fetal monitor is in operating room.
- Continue to monitor maternal vital signs with continuous electronic fetal monitoring.
- Set up for vaginal delivery as per usual process (5 cord clamps required).
- Prepare Oxytocin infusion (as per Induction Augmentation of Labour policy CLI.5810.PL.002)) to have available if needed for augmentation. Label appropriately.
- Prepare Oxytocin (40 units in one litre Normal Saline) for postpartum hemorrhage prophylaxis. Be prepared to administer after the second twin is delivered. Label appropriately.

- Set up for potential cesarean section, including opening all bundles.
- After the delivery of the first twin, the presentation of second twin is confirmed manually or by ultrasound and mode of delivery for the second twin is determined by the obstetrician.
- Attach infant identification band immediately after delivery. Identification bands will be labelled 'twin A' and 'twin B', with 'twin A' being the first twin born.
- Label all requisitions and/or samples with the appropriate twin label.
- Provide parents with identification bands from both twins.

Post delivery:

- Delayed cord clamping is done with the second twin only. The cord must be clamped immediately after the first twin.
- The cord of the first twin has one cord clamp applied while the cord of the second twin has two cord clamps applied for identification purposes.
- Obtain cord gases after the delivery of the second twin, label appropriately. Time of delivery and time of collection is clearly documented as the pH is altered with delayed collection.
- Active management of the third stage is recommended. Prophylactic oxytocin administration (5 units intravenous or 10 units intramuscular) is given after the second twin delivers. Prophylactic oxytocin infusion is considered postpartum.
- Patient is at an increased risk for a postpartum hemorrhage, therefore there is a need to monitor closely.

Postpartum:

- Skin to skin is done with both infants whenever possible, including immediately after birth.
- If the patient is breastfeeding, tandem breastfeeding is explained to the patient, as well as other feeding options to maintain adequate infant intake.
- Patient is not discharged until adequate infant feeding is established.
- Consult a Breast feeding specialist and/or Lactation consultant if available.
- Infant care is based on gestational age and/or weight and clinical symptoms, as with any infant delivered.
- Patient is at an increased risk for postpartum fatigue, stress and depression.
- Patient is a priority contact for public health.
- Provide additional information to parents regarding local and provincial support sources.

EQUIPMENT/SUPPLIES:

- Portable ultrasound
- Electronic Fetal Monitor with twin capability
- Operating equipment and supplies for cesarean section
- Equipment and supplies for vaginal birth

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