1. **Title**

*Oxytocin Administration: Induction / Augmentation*

1. **Policy**

The policy of Cogdell memorial Hospital is to provide safe and standardized nurse’s care to patient populations receiving induction or augmentation of labor. Oxytocin can be used to achieve a labor pattern that produces progressive cervical dilation, while ensuring fetal and maternal safety.

**Specific Information:**

* Decision to augment or induce labor with Oxytocin should be made by the patient and her physician after a discussion of risks, benefits and options.
* A signed consent form must be present in the medical record.
* Prenatal records will be present.
* History and physical will be present.
* The physician will document the following items in the medical record:
  + Fetal presentation
  + Pelvis is adequate for delivery
  + Gestational age
  + ~~Bishops score~~
  + Indication for the induction or augmentation
  + ~~Estimated fetal weight is > 5,000 grams for a non-diabetic woman or > 4,500 grams for a diabetic woman~~
* If the RN caring for the patient has concerns regarding administration of oxytocin for induction as ordered, the RN should discuss those concerns with the unit attending/ordering physician, unit charge nurse and house supervisor.
  + If concerns are not resolved following discussion noted above, the RN should follow the [Chain-of-Command for the Professional Nurse](http://portal/index.php?option=com_content&view=article&id=86&Itemid=942) policy
* ~~Nurses may refuse to administer Oxytocin if it is their best judgment~~
* ~~Nurses may refuse or stop administering Oxytocin if the needs of the service make it difficult or impossible to adequately monitor maternal-fetal status~~

**Special Considerations:**

* ~~Elective inductions 39 weeks or >: refer to~~ **~~elective induction policy~~**
* Scheduled inductions < 39 weeks:

Must have medical indication including, but not limited to, the following:

* + Abruptio placenta
  + Chorioamnionitis
  + Fetal demise
  + Gestational hypertension
  + Preeclampsia, eclampsia
  + Premature rupture of membranes
  + Maternal medical conditions (i.e. DM, chronic hypertension, chronic pulmonary disease, renal disease)
  + Fetal compromise (i.e. severe fetal growth restriction, isoimmunization, oligohydramnios)
* Contraindications to augmentation or induction include, but are not limited to, the following:
  + Vasa previa
  + Complete placental previa
  + Cord prolapse/presentation
  + Transverse fetal lie
  + Prior classical cervical incision
  + Active genital herpes infection
  + Previous myomectomy entering the endometrial cavity
* Pre-Infusion Requirements

20 minutes of electronic fetal monitoring with the following characteristics present:

* + At least 2 accelerations (15 bpm x 15 sec); OR
  + Moderate variability in the past 30 minutes; OR
  + Biophysical profile in last 4 hours w/score of 8 or >; OR
  + No late decelerations in the last 30 minutes; OR
  + No more than 2 variable decelerations exceeding 60 seconds and decreasing no more than 60 bpm below baseline in the last 30 minutes
  + No more than 5 contractions in 10 minutes averaged over 30 minute period
* Because oxytocin is a high-alert medication, certain safety mechanisms must be in place during administration:
  + An infusion pump must be used for the administration of oxytocin infusions.
  + Two nurses should verify the medication and pump settings prior to administration(s).
  + Oxytocin is to be administered with a separate infusion pump and the line piggybacked into a main line of Lactated Ringers at the closest port to the primary venipuncture site.
  + Respiratory status is continually monitored, using pulse Oximetry.
  + IV tubing is labeled and traced from the patient to the bag with each hand-off or shift change.
  + Continuous fetal monitoring (patient may ambulate using fetal monitoring telemetry unit) and/or may ambulate to the bathroom as needed.
* Maternal monitoring requirements during the administration of Oxytocin:
  + Monitor Vital Signs every 15 minutes to include:
  + Blood pressure
  + Maternal pulse rate
  + Maternal respiratory rate
  + Oxygen saturations
  + Temperature
    - Intact membranes – Every 4 hours
    - Non-intact membranes – Every 2 hours

1. **Procedure**
2. Ensure physician order present
3. Confirm consent status and/or obtain consent and place in medical record
4. Explain the procedure to the patient and the support person.
5. Provide patient education as indicated.
6. Perform vaginal exam as indicated.
7. Ensure physician with cesarean privileges is readily available.
8. Ensure physician is aware of patient baseline maternal/fetal status prior to beginning of procedure.
9. Initiate IV access for mainline IV, 18 gauge as per physician order.
10. Set up IV infusion pump with 500ml normal saline (NS) or lactated ringers (LR) premixed with oxytocin 30 units.
    * This yields a concentration of 1:1; 1 mu/min = 1ml/hr
    * Label IV bag and IV line
11. Piggyback oxytocin infusion into mainline IV using the port closest to the cannula insertion site.
12. Program an infusion pump to run Oxytocin as per drug library.
    * **A second nurse must verify the correct medication and dose, and check all pump settings and tubing connections before administration**.
13. **Oxytocin Infusion:**

**Low Dose Rates**

* + Starting rate of 1-2 mu/min
  + Increase rate 1-2 mu/min no sooner than every 30 minutes
  + Low dose maximum administration rate is 20 mu/min
  + Notify physician when maximum dosage is reached if no cervical change is achieved after 2 hours
  + Max dose may be increased per physician order

**Accelerated Rates**

* + Starting rate of 2-6mu/min per physician order
  + Increase rate 2-4mu/min no sooner than every 30 minutes
  + Accelerated rate maximum administration rate is 30mu/min
  + Notify physician when maximum dosage is reached if no cervical change is achieved after 2 hours
  + Max dose may be increased per physician order

**Once Labor is Established**

* + Maintain oxytocin infusion current rate or decrease rate when the following criteria are met:
    1. Contractions Q 2-3 minutes
    2. Montevideo units (MVU) 250-300 mmHg averaged over 30 minute window
    3. Do not continue to increase oxytocin infusion once labor is ~~established~~ Progressing
    4. May decrease or discontinue the Oxytocin infusion during the second stage of labor to accommodate physiologic second stage contraction pattern. add

**Circumstances Requiring Discontinuation/Decrease**

* Nursing clinical judgment and tracing interpretation.
  + Oxytocin rate may be ~~cut in~~ **decreased by half or discontinued** to manage Category II fetal heart rate tracings or tachysystole
  + Oxytocin rate must be discontinued when Category III tracing is present.
  + ~~Oxytocin infusion may be~~ **~~discontinued~~** ~~to manage Category II and/or III fetal heart rate tracings and/or tachysystole~~ Combined with above
    - Nurse ~~to~~ will utilize intrauterine resuscitation measures as indicated for Category II and III FHR tracings
    - Nurse will notify provider of discontinuation of oxytocin due to Category II or III FHR tracing or tachysystole
    - See [Tachysystole Management](http://portal/index.php?option=com_content&view=article&id=86&Itemid=942) policy and procedure

**Re-Initiation of Infusion Discontinued Due to Category II or IIII FHR Tracing/Tachysystole**

* + May be started at half the rate of the infusion BEFORE the discontinuation IF the issue that resulted in the discontinuation of the infusion is resolved within 30 minutes or less.
  + If the Oxytocin has been discontinued for 30 minutes or greater, the infusion will be restarted at initial start rate ~~of 1-2 mu/min~~ and titrated as ~~per~~ delineated in sections L as applicable ~~policy~~ to achieve adequate contraction pattern.
  + ~~Nurse to utilize intrauterine resuscitation measures as indicated for Category II and III FHR tracings~~ moved
  + ~~Nurse will notify provider of discontinuation of Oxytocin due to Category II or III FHR tracing or tachysystole~~ moved
    1. ~~Oxygen and Oxytocin cannot be administered at the same time. Remove~~

1. ~~Once labor is established, there is no need to continue to increase oxytocin infusion.~~ moved
2. ~~May decrease or discontinue the Oxytocin infusion during the second stage of labor to accommodate physiologic second stage contraction pattern. add~~ moved
3. Assessment and Documentation Requirements
   * Assess and document the fetal monitoring tracing when:
     1. Oxytocin is increased or decreased
     2. Every 15 minutes that the dose is unchanged
     3. And every 5-15 minutes during the active pushing phase of the second stage of labor (based on risk factors).
        1. Summary notes may be used to document maternal-fetal status when the EFM data is permanently archived.
4. If IUPC is in place:
   * MVU must be less than 300 mmHg
   * Uterine resting tone must be less than 25 mmHg

~~See Tachysystole algorithm for management of tachysystole~~ moved

1. **Definitions**

Augmentation: refers to the use of methods to restart or strengthen labor after it has spontaneously begun.

Induction: refers to the use of methods to begin labor in a woman who is not spontaneously laboring

1. **Relevant Federal and State Statutes**

American College of Obstetricians and Gynecologist. (2009). Induction of Labor (Practice Bulletin #107). Washington, D. C.: Author.

Association of Women’s Health Obstetric and Neonatal Nurses. (2009). *Fetal heart monitoring principles and practices* (4th ed.) Washington, DC: Author.

Clark, S., Belfort, M., Saade, G., Hankins, G., Miller, D., Fry, D., & Meyers, J. (2007). Implementation of a conservative check-list based protocol for oxytocin administration: Maternal and newborn outcomes. *American Journal of Obstetrics & Gynecology, 480,* e1–e5.

Doyle, J., Kenny, T. H., Burkett, A. M., & von Gruenigen. (2011). A performance improvement process to tackle tachysystole. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 40,* 512–519.

1. **Related CMH Documents**

Oxytocin induction or augmentation of labor:

[**http://portal/index.php?option=com\_content&view=article&id=86&Itemid=942**](http://portal/index.php?option=com_content&view=article&id=86&Itemid=942)

1. **Dates Approved or Amended**

Include origination date, dates of major or minor revisions and dates reviewed without changes.

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1. **Contact Information**

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