

Department:	Obstetrics and Gynecology		
Document:	Multidisciplinary Policy and Procedure		
Title:	Augmentation of Labor and the Use of Oxytocin		
Applies To:	All Obstetrics and Gynecology Staff		
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1. PURPOSE:

- 1.1 This protocol describes the procedures and steps required to infuse Oxytocin for induction or augmentation of labor.

2. DEFINITIONS:

- 2.1 Augmentation of labor is the process of stimulating the uterus to increase the frequency, duration and intensity of contractions after the onset of spontaneous labor.

3. POLICY:

- 3.1 Commencing and stopping of oxytocin is responsibility of physician.
- 3.2 Abdominal palpation and pelvic examination should be performed, as well as CTG fetal monitoring, prior to commencing oxytocin.
- 3.3 Fetal monitoring should be ongoing while the patient is receiving oxytocin infusion.
- 3.4 Oxytocin infusion should be delivered through a secondary IV (intravenous) connected as close to the primary venipuncture site as possible via 3-way stopcock.
- 3.5 Patient should never be left unattended during oxytocin infusion.
- 3.6 In case of augmentation following Prostin induction, six hours must elapse from the last dose, prior to commencing an oxytocin infusion.
- 3.7 If higher doses are used the maximum dose used should not exceed 32mu/min (the license maximum dose is 20 milliunits per minutes).
- 3.8 Strength of contraction is to be determined and documented by the duration of the contraction felt by palpation. (Mild 0–25 seconds, moderate 25–45 second, Strong 45–60 seconds). P&P admission to delivery unit.
- 3.9 Nursing Staff caring for the patient on a oxytocin infusion will contact the resident to review the patient if:
- 3.9.1 Patient has ≥ 5 contractions in 10 minutes.
- 3.9.2 The duration of the contraction felt on palpation ≥ 60 seconds.
- 3.9.3 No resting phase between contractions.
- 3.9.4 If abnormal CTG tracing seen.
- 3.10 Uterine Activity Assessment
- 3.10.1 Palpation and external/ internal electronic methods can be used to monitor uterine activity. Palpation yields information about frequency (number in 10 minutes), duration (in seconds) and relative intensity.
- 3.10.2 External monitoring provides a recording of frequency and relative intensity. The sensitivity adjustment of the tococardiograph is adjusted to a resting pressure of 10–20mmHg.
- 3.10.3 The recording gives a relative reading and cannot be used to define actual strength of the pattern, maternal and fetal movement, and tightness of the belt may all alter the reading.

- 3.11 Contraindications Absolute:
 - 3.11.1 Transverse lie
 - 3.11.2 Absolute CPD
 - 3.11.3 Active genital herpes
 - 3.11.4 Previous classical caesarean section or metroplasty
 - 3.11.5 More than one previous LSCS
 - 3.11.6 Invasive cancer of the cervix
 - 3.11.7 Placenta Previa
- 3.12 Caution should be exercise in the following situations:
 - 3.12.1 Presence of a LSCS scar
 - 3.12.2 Grand multiparity (more than 6)
 - 3.12.3 Unfavorable cervix (Bishop's Score less than 5)
 - 3.12.4 Multiple pregnancies
 - 3.12.5 Breech presentation
 - 3.12.6 Polyhydramnios
 - 3.12.7 Prostin pessary administration with the preceding 6 hours
 - 3.12.8 Suspected macrosomia
- 3.13 Complications:
 - 3.13.1 Water intoxication
 - 3.13.2 Pulmonary edema
 - 3.13.3 Hyperstimulation
 - 3.13.4 Uterine Rupture
 - 3.13.5 Fetal Distress

4. PROCEDURE:

- 4.1 A physician order should be documented in physician order sheet.
- 4.2 Cases for induction should be monitored by CTG for 20 minutes prior to induction to establish fetal heart rate baseline (P&P induction of labor).
- 4.3 Fetal heart rate and uterine contractions must be continuously monitored by CTG.
- 4.4 Insert a G18 cannula, if not already in site. Commence mainline IV fluids, as ordered. Mainline IV fluid is to be a balance solution, i.e. D5NS or Ringer's Lactate.
- 4.5 The nursing staff should perform;
 - 4.5.1 Primigravida and parity less than 5.
 - 4.5.1.1 Add 10 units of oxytocin in 500ml balance solution, i.e. D5NS or RL (Oxytocin concentration 3cc/hr=1mu/min).
 - 4.5.1.2 For multipara ≥ 5 and OR previous scar: add 5 units off oxytocin in 500ml balance solution, i.e. D5NS or RL.
 - 4.5.1.3 Ensure additive label is placed on IV bottle.
- 4.6 Commence partogram and record baseline vital signs, urinalysis, fetal heart rate, vaginal examination findings and contraction pattern.
- 4.7 Oxytocin infusion to mainline via 3-way stopcock, at the most proximal junction to the patient. If adverse response to oxytocin occurs, discontinuing infusion ensures that no oxytocin remains in IV line, if it is connected at the proximal point.
- 4.8 Add warning sticker to oxytocin line, just below cassette; to prevent confusion between mainline infusion pump.
- 4.9 Commence infusion as the following:
 - 4.9.1 Total IV fluid from both lines should not exceed 125cc/hr.
 - 4.9.2 To deliver 1-2mu Oxytocin per minute for Primigravida and low parity, and for multipara and previous scar, the rate to be decided by senior physician (possibly 1mu Oxytocin per minute).
 - 4.9.3 Flow rate is to be controlled by IV infusion pump.

- 4.10 Increase the infusion rate by 2mu per minute in primigravida and low parity, and 1mu per minute in multipara, every 30 minutes, until desired response is (3–4 contractions in 10 minutes) is obtained with duration of ≤ 60 seconds, adjust rate of main line every time Oxytocin is increased so both together total 125cc/hr.
- 4.11 Infrom senior registrar when the dose reaches:
 - 4.11.1 32mu/min in primigravida and low parity.
 - 4.11.2 20mu/min in multipara.
- 4.12 Notify physician if contractions are $\geq 5:10$ and duration felt on palpation is ≥ 60 seconds. Physician to assess strength of contractions, and review rate of titration.
- 4.13 Document fetal heart rate, every 15 minutes, in labor notes and every 30 minutes on the Partogram. If fetal distress occurs, documentation shall need to be made more frequently in the labor notes.
- 4.14 Management of the complications.
 - 4.14.1 Fetal Distress:
 - 4.14.1.1 Discontinue Oxytocin infusion immediately and increase rate of mainline IV fluid.
 - 4.14.1.2 Administer oxygen via face mask at 8–12LPM.
 - 4.14.1.3 Notify resident on duty.
 - 4.14.1.4 Reposition patient.
 - 4.14.1.5 Prepare for vaginal examination and application of fetal scalp electrode, if the tracing record is not clear e.g. women obese or moving too much. (P&P vaginal examination).
 - 4.14.1.6 Recommence Oxytocin infusion, as per physician orders.
 - 4.14.2 Tachysytole:
 - 4.14.2.1 Decrease or discontinue Oxytocin.
 - 4.14.2.2 Position woman on her left side.
 - 4.14.2.3 Increasing intravenous fluids.
 - 4.14.2.4 Review by physician.
 - 4.14.2.5 Oxygen at 6 liters for duration of fetal compromise.
 - 4.14.2.6 Palpate the uterus to determine uterine response to management (serum half-life of Oxytocin is 2–3 minutes, thus stopping the infusion will diminish uterine activity, rapidly).
- 4.15 In patients with previous uterine scar, observe for scar tenderness and fresh per vaginal loss, every 30 minutes. Notify physician stat if occurred (may be indicative of uterine rupture).
- 4.16 Record input and output on fluid balance chart (P&P admission to L&D).

5. MATERIALS AND EQUIPMENT:

- 5.1 IV trolley.
- 5.2 IV fluids for mainline, as ordered.
- 5.3 Dextrose 5% in Normal Saline 500ml or Ringer's Lactate 500ml with Oxytocin 5 units or 10 units added, as ordered.
- 5.4 Infusion pump set.
- 5.5 Three way stopcock.
- 5.6 Labor Notes/ partogram.
- 5.7 CTG Monitor.
- 5.8 Fluid Balance Chart.
- 5.9 Intravenous Solution/ Additives Administration Record.
- 5.10 Additive Labels.

6. RESPONSIBILITIES:

- 6.1 Physician
- 6.2 Nurses


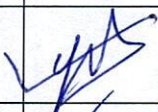
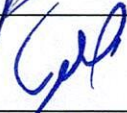
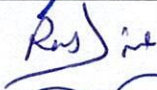

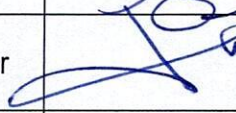

7. APPENDICES:

- 7.1 Narcotics Drug Prescription
- 7.2 Partogram

8. REFERENCES:

- 8.1 Guidelines Obstetrics & Gynecology, Ministry of Health, 2013.
- 8.2 National Institute for clinical excellence. Inherited Clinical Guide D- Induction of Labor, June, 2001.
- 8.3 Jane Thomas, Director – National Collaboration Centre for Women & Children's Health, February & March, 2002.
- 8.4 The American Congress Obstetricians & Gynecologist, series 1, Dec. 2012.
- 8.5 Obstetrics & Gynecology. An evidence-based text for MRCOG, first edition, 2004.
- 8.6 Integrate management of pregnancy, childbirth WHO/ RHR/ 00.07, 2003.
- 8.7 World Health Organization 2014.
- 8.8 CBAHI Standard 3rd Edition 2016.

9. APPROVALS:

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KINGDOM OF SAUDI ARABIA



وزارة الصحة
Ministry of Health

Hospital: _____ مستشفى:
Region: _____ المنطقة/المحافظة:
Dept./Unit: _____ القسم/الوحدة:

MRN: _____ رقم الملف الطبي:
Name: _____ الاسم:
Nationality: _____ الجنسية:
Age: _____ سنة _____ شهر _____ يوم _____
Years Months Days العمر:
Date of Birth: _____ / _____ / 14 H _____ / _____ / 20 تاريخ الميلاد:
Gender: Male Female الجنس:

NARCOTIC DRUG PRESCRIPTION

Narcotic No. : _____

Inpatient Date : _____ / _____ / _____
Weight of the Patient: _____ kgs. الوزن Height of the Patient: _____ cm الطول Time : _____ am / pm
Pregnant: _____ حامل Lactating: _____ مرضع
Allergies: _____ الحساسية
Diagnosis: _____ التشخيص
Drug Name: _____ اسم الدواء
Dose Required: _____ الجرعة ومدة استخدامها
Route of Administration: _____ طريقة اخذ الدواء
Date of Prescription: _____ / _____ / _____ Hijri Date: _____ / _____ / _____ Time of Prescription: _____ تاريخ ووقت الوصفة
Consultant In-Charge: _____ اسم الطبيب
Prescribers Stamp / Signature: _____ توقيع وختم الطبيب

اسم وتوقيع الممرضة التي اعطته الحقنة Administration Physician	اسم وتوقيع الطبيب الذي اشرف على اعطاء الحقنة Administered Nurse	اسم وتوقيع رئيسة قسم التمريض Head Nurse
Name: _____	Name: _____	Name: _____
ID No.: _____	ID No.: _____	ID No.: _____
Sign: _____	Sign: _____	Sign: _____
Stamp: _____	Stamp: _____	Stamp: _____

Quantity Dispensed: _____
Discarded Amount of Remained Drug: _____
Witnessing Nurse Name and Sign: _____ Witnessing Physician Sign and Stamp: _____

Dispensed by: _____ ID No.: _____ Signature: _____ المسئول عن الصرف
(Pharmacist)
Received by: _____ ID No.: _____ Signature: _____ اسم مستلم الوصفة
Date Received: _____ Time: _____ التاريخ- الوقت

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