**Zuckerberg San Francisco General Hospital And Trauma Center**

**Birth Center Department Policy**

**BC 14.0 FOLEY BULB FOR LABOR INDUCTION**

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**TITLE: FOLEY BULB FOR LABOR INDUCTION**

**PURPOSE:**  To provide guidelines for the nursing role in the placement and maintenance of a Foley bulb for labor induction.

STATEMENT OF POLICY: The goal of labor induction with a Foley bulb is to aid in the initiation of labor using the mechanical cervical dilating properties of the inflatable balloon portion of the Foley bulb.

A Foley bulb is generally used when the Bishop’s score is < 6 and/or other induction of labor modalities are not deemed to be effective or safe, given the unique characteristics of the patient in question.

The Foley bulb is to be placed by a qualified provider (MD/CNM). It will be maintained by the RN. The RN will be responsible for monitoring fetal and maternal response to the Foley bulb insertion and maintenance.

## Relevant Data

The unfavorable cervix is an impediment to the successful induction of labor. The Foley bulb is used to induce labor and is a mechanical approach that promotes both cervical ripening and dilatation. Prostaglandins are released in reaction to the introduction of the balloon into the cervix, and dilatation is caused by gravity and traction placed on the balloon. The use of Foley bulb insertion into the cervix has been shown to shorten labor, lower cesarean section rates and have favorable perinatal outcomes.1-4 Inflation of a Foley bulb to 60 mL has been shown to increase the likelihood of achieving delivery within 12 hours as compared to 30 mL inflation, especially for nulliparous patients5. A single RCT showed that the addition of oxytocin to a transcervical Foley catheter does not shorten the time to delivery and has no effect on the likelihood of delivery within 24 hours, and it may lead to an increased use of analgesia during ripening6. Foley bulb inductions in conjunction with misoprostol versus misoprostol alone have been shown to shorten the time to delivery without any difference in maternal or neonatal outcomes7. The routine use of oxytocin or misoprostol, in addition to Foley catheter ripening, is not required in all of cases but may be considered in selected patients at the discretion of the nurse-midwife, attending physician or chief resident.

## Indications

1. Labor induction in a patient with a Bishop’s score of less than or equal to 6
2. Outpatient cervical ripening via Foley bulb may be used in select cases. See relevant section.

## Contraindications

ABSOLUTE

1. Placenta previa.
2. Prior classical cesarean birth
3. Other contraindications for vaginal birth
4. Rupture of membranes
5. Active vaginal bleeding

RELATIVE

1. Fetal malpresentation
2. Bishops Score ≥ 6
3. Chorioamnionitis

**PROCEDURE:**

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| **EQUIPMENT** | **OBTAINED FROM** |
| 30-60 ml of Normal Saline | Pharmacy/Unit, clean utility room |
| 30 ml Syringe | CPD/Unit omnicell |
| Foley Catheter 30 ml balloon or 2-way Foley Catheter with 60 ml balloon | CPD/Unit omnicell |
| Pediatric intubation stylet  | CPD/Unit omnicell |
| Betadine Solution | Pharmacy/medication room |
| Speculum  | OR CPD/clean utility room |
| Ring forceps  | OR CPD/clean utility room |

1. Explain procedure to patient and support person to allay anxiety and promote cooperation.
2. Suggest that the patient empty her bladder prior to the procedure.
3. Obtain maternal vital signs and monitor fetal heart rate and contraction pattern for minimum of 30 minutes prior to insertion
4. MD / CNM performs sterile vaginal examination to determine Bishop’s score. A score ≥6 indicates that the cervix has an 80% chance of dilating with Oxytocin augmentation alone. A score <6 indicates Foley bulb may be effective in cervical dilatation
5. Determine whether a 30 or 60 ml Foley bulb will be used, and obtain the correct size.
6. Assist patient into lithotomy or semi-lithotomy position.
7. The provider will insert the Foley bulb through the uterine cervix. The insertion method to be employed is at the discretion of the provider. Methods include inserting the Foley bulb digitally or using a sterile speculum and ring forceps.8 If those methods are unsuccessful or if a difficult placement is indicated, the catheter can be placed digitally with the aid of a guide such as a pediatric intubation stylet.
8. Fill 30-60 ml syringe with normal saline.
9. After placement of the catheter, maintain gentle traction by securely taping it to the inner thigh and reassessing as needed.
10. Place patient on continuous toco and fetal heart rate monitoring for at least one hour after Foley bulb placement (if used in conjunction with Oxytocin or misoprostol, those respective policies supercede Foley bulb monitoring guidelines). Monitoring may be ordered continuously by the MD / CNM and in cases where patients are at risk for uteroplacental insufficiency or cord compression. In rare cases, the Foley bulb occasionally may cause tachysystole of the uterus or tetanic contractions.
11. Have oxygen 10L/minute available.
12. Have Terbutaline readily available in cases of uterine tetany. Dose given is 0.25 mg/SQ, per provider order.
13. Take vital signs per BC 13.0 Fetal Monitoring/Uterine Contraction Assessment and Documentation.
14. Notify provider of any of the following events or complications:
	1. Rupture of membranes
	2. Vaginal bleeding
	3. Abnormal fetal heart rate tracing
	4. Tachysystole or tetanic uterine contractions

## Documentation

## Baseline vital signs

## Baseline fetal heart rate and contraction pattern

## Name and interventions of provider(s)

## Pt. response to intervention

**OUTPATIENT MANAGEMENT**

For some patients, it may be preferable to place the Foley bulb as an outpatient and have them return for admission at a specified time. This option has been found to be safe and effective.9 Patients with medical or obstetric conditions that are unstable or could rapidly deteriorate warrant inpatient management. Patients must agree to be compliant and comprehend and sign the instructions provided.

Candidates for outpatient management may include:

1. Medical Indications:
	1. Gestational diabetes (well-controlled)
	2. Chronic hypertension (well-controlled)
2. Obstetric Indications:
	1. Postdates, prolonged gestation
	2. Fetal demise

Contraindications for **outpatient management** of catheter:

1. Patient has no phone access or transportation
2. Patient has fewer than 5 prenatal visits.
3. Patient unable to verbalize understanding of care plan or instructions for self care.
4. **And any conditions that require continuous fetal monitoring such as:**
	1. Non reactive fetal heart rate tracing
	2. BPP ≤ 6
	3. Unstable medical or obstetric conditions such, as HELLP Syndrome, severe pre-eclampsia
	4. Known or suspected placental abruption or active vaginal bleeding
	5. Preterm (<37 weeks)
	6. Oligohydramnios
	7. Polyhydramnios
	8. IUGR
	9. Cholestasis
	10. Uterine scar

**PROCEDURE**

Follow inpatient Foley bulb placement procedure.

Post-Procedure Assessment and Education

1. Obtain an NST. Contact the ordering provider for review. Observe for vaginal bleeding, SROM, tachysystole (5 or more contractions in a 10 minute interval) or tetanic contractions (> 2 minutes long). Notify provider if any of these occur.
2. If monitoring is normal and the physician or nurse midwife has cleared the patient for release, she may be released home with written instructions for outpatient Foley cervical ripening (see Perinatal web site on the intranet). A specific date/time for return should be specified, and a copy of the instruction sheet, signed by patient and provider, should be filed in the prenatal chart.
3. If the patient does not have a thermometer for monitoring her temperature, please dispense her one from floor supply.

**APPENDICES:**

* Appendix A: Bishop’s Score
* Appendix B: Patient’s Instructions for Outpatient Management (See Perinatal Website)

**CROSS REFERENCES:**

* BC 13.0 Fetal Monitoring/Uterine Contraction Assessment and Documentation
* BC 22.0 Misoprostol (Cytotec®) Use for Cervical Ripening
* BC 23.0 Oxytocin (Pitocin®): Administration for Induction or Augmentation of Labor

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8. Erekson EA, Myles TD, Amon E. A new insertion technique for the transcervical Foley catheter used for cervical ripening. J Reprod Med. 2008 Mar;53(3):188-90.
9. Sciscione, Anthony C., et.al., Transcervical Foley Catheter for Preinduction Cervical Ripening in an Outpatient Versus Inpatient Setting. Ob Gyn 2001;98(5):751-6.

**SUPERSEDES:** None

**Reviewed by**: Brandon K, Delgado A, Otway G, Vargas J, Vasquez M

**Date Adopted:** 8/04

**Date(s) Reviewed:** 8/04, 09/07, 11/07, 11/10, 3/11, 2/16

**Date(s) Revised:** 8/04, 09/07, 11/07, 11/10, 3/11, 2/16

**Appendix A**

**Bishop’s Score**

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| BISHOP SCORING SYSTEM TO EVALUATE THE CERVIX |
| **FACTOR** | **0** | **1** | **2** | **3** |
| **DILITATION** | 0 cm | 1-2 cm | 3-4 cm | 5-6 cm |
| **EFFACEMENT** | 0-30% | 40-50% | 60-70% | 80%+ |
| **STATION** | 3 | 2 | 1 or 0 | +1 or +2 |
| **CERVICAL****CONSISTENCY** | Firm | Medium | Soft |  |
| **CERVICAL****POSITION** | Posterior | Middle | Anterior |  |