Maine Medical PARTNERS Women's Health

A department of Maine Medical Center

Oxytocin Protocol

EPIC Order set to read:

1. Oxytocin 30 units in 0.9% NaCl 500 ml peripheral line, IV infusion continuous.
2. Start at 2 milli-units/min.
3. Increase by 2 milli-units/min.
4. Titrate every 30 minutes until contractions are regular at 2-3 minute intervals.
5. Do not exceed 16 milliunits/min without physician evaluation of contractions and FHR tracing.

Criteria for the diagnosis of inadequate uterine activity[1,3]

- A contraction pattern demonstrating less than 200-250 Montevideo units (MVU) in the presence of inadequate labor process.

OR

- A contraction pattern with less than a contraction every 2-3 minutes, lasting less than 80-90 seconds , and not palpating as "strong" to an experienced labor nurse.

Criteria for labor augmentation

- FHR tracing that is either Category I or II (normal or indeterminate).[2]
- Inadequate uterine contractions as defined above.
- Prolonged latent phase defined as ≥ 20 hours nulliparous or ≥14 multiparous.[4]
- Protracted active phase as defined as rates of cervical change slower than those noted in Table 1.[5]
- Protracted second stage is defined as a duration greater than those noted in Table 2.[5]

TABLE 1[5]

Cervical Dilation (cm)	Parity 0	Parity 1	Parity 2+
3-4	1.8 (8.1)	-	-
4-5	1.3 (6.4)	1.4 (7.3)	1.4 (7.0)
5-6	0.8 (3.2)	0.8 (3.4)	0.8 (3.4)
6-7	0.6 (2.2)	0.5 (1.9)	0.5 (1.8)
7-8	0.5 (1.6)	0.4 (1.3)	0.4 (1.2)
8-9	0.8 (1.4)	0.3 (1.0)	0.3 (0.9)
9-10	0.5 (1.8)	0.3 (0.9)	0.3 (0.8)

Data are median (95th percentile)

TABLE 2[5]

Duration of Second Stage (hours)	Parity 0	Parity 1	Parity 2+
With Epidural	1.1 (3.6)	0.4 (2.0)	0.3 (1.6)
Without Epidural	0.6 (2.8)	0.2 (1.3)	0.1 (1.1)

Data are median (95th percentile)

Additional considerations

- Amniocentesis for fetal lung maturity may be appropriate in rare clinical situations. A mature fetal lung test before 39 weeks' gestation, in the absence of appropriate clinical circumstances is not an indication for delivery.
- Non-medically indicated induction of labor should be undertaken only after a thorough discussion with the patient and documentation of the risks of this procedure as opposed to awaiting natural labor.
- Non-medically indicated induction prior to 39 completed weeks' of gestation is strongly discouraged.
- Induction in nulliparous women is strongly discouraged
- Induction in women with an unfavorable cervix should be approached with caution.
- In the absence of a complicating condition in which expedited delivery has been shown to improve either maternal or fetal outcome, oxytocin administration should be instituted only after a patient clearly meets both longstanding, well-defined criteria for prolonged latent phase, protracted active phase, protracted second stage and hypotonic uterine dysfunction
- Once these contraction parameters have been achieved, failure of subsequent labor progression over an appropriate time period should lead to consideration of a cesarean delivery rather than more oxytocin
- Oxytocin should be continuously titrated to the lowest dose compatible with a physiologic rate of labor progress
- Consider turning oxytocin off in active phase of labor as some patients will contract on their own.

References:

1. Clark S, et al. Oxytocin: New Perspective on an Old Drug. Am J Obstet Gynecol 2009; 35e1-35e5

2. The 2008 National Institute of Child Health and Human Development Workshop Report on Electronic Fetal Monitoring-Update on Definitions Interpretation, and Research Guidelines. Obstet Gynecol 2008;111(3)

3. Spong CY, et al. Preventing the first cesarean delivery: a summary of a joint Eunice Kennedy Shriver National Institute of child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop. Obstet Gynecol 2012;120:1181-93.

4. Friedman EA. The labor curve. Clin Perinatol 1981;8:15-25.

5. Zhang J, et al. Contemporary patterns of spontaneous labor with normal neonatal outcomes. Obstet Gynecol 2010;116:1281-7.