



POSITION STATEMENT

PREMATURE RUPTURE OF MEMBRANES AT TERM

Consistent with the philosophy of the American College of Nurse Midwives (ACNM) that women have a right to self-determination in their care, ACNM affirms the following:

- Women should receive counseling and informed consent about the risks and benefits of management options of premature rupture of membranes (PROM) at term.
- Women should be allowed to select expectant management as a safe alternative to induction of labor under the following conditions:
 - A term, uncomplicated, singleton, vertex pregnancy with clear amniotic fluid,
 - Absence of identified infection, including Group B streptococcal infection (GBS), Hepatitis B and C, and HIV,
 - Absence of fever,
 - No evidence of significant risk for fetal acidemia in the fetal heart rate and fetal heart rate pattern,
 - Expectant management requires minimization of digital vaginal examinations, including avoidance of a baseline vaginal exam.

ACNM recommends that further research be conducted comparing induction to expectant management for women colonized with GBS.

Background

PROM at term affects 8%-10% of pregnant women. When women have PROM without labor contractions, expectant management or immediate induction of labor is offered.¹ Many women prefer expectant management, but there is a concern that expectant management may engender a higher risk of chorioamnionitis and neonatal sepsis when compared to the incidence of infection in women who undergo immediate induction². For this document, expectant management is defined as watchful waiting until spontaneous labor occurs.

The TERMPROM study,² a multicenter, randomized clinical trial that included 5,041 women at term with PROM, is the largest prospective study conducted to date in which researchers investigated the effect of expectant management on maternal and neonatal infection. The results of this study have been referenced as evidence that immediate induction of labor is safer than expectant management.³ The researchers found a higher incidence of uterine infection in the women in the expectant management arm of this trial.² However, the TERMPROM study had several important limitations that affected the incidence of maternal infection:

- The threshold for diagnosis of chorioamnionitis was 37.5°C on two or more occasions \geq 1 hr apart or a temperature of \geq 38°C, which is lower than the temperature of 38°C that is

commonly used to diagnose chorioamnionitis. This study definition possibly resulted in an over-diagnosis of chorioamnionitis².

- Many women in the study had digital vaginal examinations upon entry to the study.² Multiple digital vaginal examinations are an independent risk factor for uterine infection and a stronger predictor of chorioamnionitis than duration of rupture of membranes (ROM).⁴ In a secondary analysis of the TERMPROM data set, the authors found that when multiple vaginal exams are minimized, a lengthy interval from ROM to birth had a minimal impact on development of chorioamnionitis.⁴
- In this study, 10.7% of the women were colonized with GBS when they entered the study protocol. The results of the cultures collected at entrance to the study were not known to the clinicians managing these births.⁵ Because the study was conducted prior to publication of the current Centers for Disease Control and Prevention (CDC) guidelines for antibiotic prophylaxis for GBS colonization,^{6,7} a minority of the women in this study who were GBS + were given antibiotic prophylaxis during labor.⁵ Colonization with GBS increases the risk for chorioamnionitis approximately twofold (21% if GBS+ vs. 12% if GBS-).^{4,8} Unfortunately, to date researchers have not compared induction to expectant management in women who are not colonized with GBS. Therefore, it is difficult to extrapolate these results to a population of women who have had cultures at 35-37 weeks and are not colonized with GBS when PROM at term occurs, the population in which expectant management is an option.
- The incidence of neonatal infection was not higher in the expectant management groups in the TERMPROM study than for the women managed with immediate induction.¹ Although more perinatal deaths occurred in the expectant management groups than in the induction groups, this difference was not statistically significant. Four deaths, not attributable to congenital anomalies, occurred in the expectant management group, and none occurred in the induction groups (p=0.125). One death was related to birth trauma, one to GBS sepsis, and two were secondary to asphyxia.

The use of the results of the TERMPROM study to suggest that rates of chorioamnionitis are higher in women managed expectantly is questionable given that the clinical management of women managed expectantly in this study predisposed them to develop chorioamnionitis.

REFERENCES

1. Zlatnik FJ. Management of premature rupture of membranes at term. *Obstet Gynecol Clin North Am.* 1992;19:353-364.
2. Hannah ME, Ohlsson A, Farine D, et al. Induction of labor compared with expectant management for premature rupture of the membranes at term. TERMPROM Study Group. *N Engl J Med.* 1996;334(16):1005-1010
3. American College of Obstetricians and Gynecologists. ACOG practice bulletin no. 80: premature rupture of membranes. Clinical management guidelines for obstetrician-gynecologists. *Obstet Gynecol.* 2007;109(4):1007-1019.
4. Seaward, PG, Hannah, ME, Myhr, TL, et al. International Multicentre Term Premature Rupture of Membranes Study: evaluation of predictors of clinical chorioamnionitis and postpartum fever in patients with premature rupture of membranes at term. *Am J Obstet Gynecol.* 1997;177(5):1024-1029.

5. Hannah, ME, Ohlsson, A, Wang, EE, et al. Maternal colonization with group B streptococcus and premature rupture of membranes at term: the role of induction of labor. TermPROM Study Group. *Am J Obstet Gynecol.* 1997;177:780-785.
6. Centers for Disease Control and Prevention. Prevention of perinatal group B streptococcal disease: a public health perspective. *MMWR.* 1996;45(RR-7):1-24.
7. National Center for Infectious Diseases, Division of Bacterial and Mycotic Diseases. Prevention of perinatal group B streptococcal diseases. Revised guidelines from CDC. *MMWR.* 2002;51(RR-11):1-22.
8. Yancey MK, Duff P, Clark P, et al. Peripartum infection associated with vaginal group B streptococcal colonization. *Obstet Gynecol.* 1994;84:816-819.

Source: Division of Standards and Practice, Clinical Practice Section
Approved: ACNM Board of Directors, October 2008
Reviewed March, 2012