**WHAT'S INSIDE**

- **P1** Message from the CEO
- **P1** PROM
- **P1** BV or Not BV?
- **P2** Journal Watch
- **P3** Recent Publications
- **P3** Legal Corner
- **P4** QA Q&A
- **P4** New Tests Announcements
- **P4** Classifieds/Ads

**UPCOMING EVENTS**

- **06/10** UPIDHM: University of Pennsylvania Infectious Disease Herpes Meeting
  Philadelphia, PA
- **06/25-27** MDFP: Maryland Academy of Family Physicians
  Cumberland, MD
- **07/24-27** PHM: Pediatric Hospital Medicine
  2008 Annual Conference
  Denver, CO
- **09/10-13** UMDNJ: University of Medicine & Dentistry of NJ School of Osteopathic Medicine
  12th Annual Board Review
  Mt Laurel, NJ
- **09/12-13** WHCF: Women's Healthcare Forum: Chicago Meeting
  Rosemont, IL (Chicago)
- **09/19-21** WHCF: Women's Healthcare Forum: Philly Meeting
  Philadelphia, PA

**PREMATURE RUPTURE OF MEMBRANES (PROM)**

Author: Dr. Shlomo Stemmer

Premature rupture of membranes (PROM) is defined as spontaneous rupture of the chorionicamnion membranes prior to the onset of labor. PROM occurs in about 10% to 15% of all pregnancies and is usually followed by the onset of labor. Preterm premature rupture of membranes (PPROM) is the spontaneous rupture of membranes before 37 weeks gestation. PPROM occurs in 3% of all pregnancies and is associated with significant perinatal morbidity and mortality. PPROM is responsible for about one-third of preterm deliveries and in about 75% of the cases, delivery occurs within one week of membrane rupture.

The cause of PROM is usually multifactorial and often unknown. At term, weakening of the fetal membranes may result from contractions. Intrauterine infection or inflammation is more commonly the cause of PPROM. Sexually transmitted diseases and bacterial vaginosis (BV) are more frequently found in women with PROM. Other factors associated with PROM are cigarette smoking during the current pregnancy, low socioeconomic conditions, previous preterm birth, prior cervical conization, cervical cerclage, amnioncentesis, vaginal bleeding, multifetal pregnancy and polyhydramnios or too much amniotic fluid in the amniotic sac.

Diagnosis of PROM is most commonly made by the patient's medical history and an observation of fluid passing or pooling in the vagina. A positive nitrazine test and/or ferning of the fluid almost always confirms the diagnosis. Differential diagnosis includes urinary incontinence, cervicitis, vaginitis, passing of the mucous "plug" and the presence of semen or douche. If the diagnosis is uncertain, ultrasound evaluation of the level of amniotic fluid may be helpful. However, ultrasound alone cannot confirm the diagnosis since oligohydramnios (low levels of amniotic fluid) is possible. Amnioinfusion of indigo-carmine dye and observation of the presence of this dye in the vagina confirms the diagnosis. If PROM is suspected, a sterile speculum examination to assess cervical dilation, obtain cultures and evaluate the vaginal fluid is performed. Digital vaginal examination should be avoided to decrease the risk of infection.

Management of term PROM can be expectant, by waiting up to 12 to 24 hours for labor to start, or active by inducing labor using oxytocin. Prior to induction of labor, gestational age, fetal presentation and Group B Streptococcal (GBS) status should be determined. Immediate induction of labor is advised if risk factors exist such as multiple digital examinations or signs and symptoms of chorioamnionitis are present.

Management of PPROM is controversial and varies among centers. Patients managed conservatively have a 75% chance of delivering within 7 days.

**BV OR NOT BV?**

Author: Dr. Spencer Hedges

Since the ground-breaking research by Gardner and Dukes in the 1950's, it has been understood that the vaginal flora of women without bacterial vaginosis (BV) is different from that of women with BV. In women without BV, Lactobacillus species are predominant. Despite the presence of many other bacterial species in the vagina, including in many cases the same bacteria that are associated with or are possibly the etiological agents of BV, the levels of Lactobacillus are logs-fold higher than other competing bacteria.

In contrast, women with BV have numbers of Lactobacillus which are much reduced or virtually absent, and the vaginal flora is dominated by anaerobic Gram-positive and Gram-variable bacteria. The mechanism of how the vaginal flora can change so distinctly is unknown. It is clear from epidemiological research, however, that human behaviors including sexual activity and douching, among others, are risk factors for BV.

BV is diagnosed in two ways. The most common guideline for BV diagnosis, used and will provide current clinical review. In addition, The LaboratorianSM has a "journal watch corner" that summarizes recent articles from over fifty journals in the fields of Infectious diseases, cancer, and immune-based diseases. Published four times yearly, The LaboratorianSM serves as the only platform for presenting clinical laboratory oriented discussions and policies to our clients. Your continual review, criticism and input is essential to the success of The LaboratorianSM.
in a clinical setting, is known as the Amsel criteria. This relies on the clinical observation of signs and symptoms of BV including discharge, odor, low pH, and the presence of clue cells (epithelial cells with a biofilm “beard” of anaerobic bacteria). The second method of diagnosis is by Gram stain or wetmount setting, is known as the Nugent criteria. This is a semi-quantitative evaluation of Gram-positive and Gram-negative bacteria and has the advantage that it is performed on the vaginal vault and can measure maturity of the fetal lungs. If the vaginal pool appears to be dirty, the fetus is at risk of prematurity. This procedure should be considered. Once the presence of pulmonary maturity has been determined, delivery should be avoided because an apparent management increase may raise the risk of arnini.

PPROM remote from term, occurring 23 to 31 weeks gestation, is associated with significant fetal risk. If PPROM is considered for delivery. Concerning management with the aim to fetuses to mature before delivery, it is possible to have mature fetal distress. Maternal rest and increased hydration may lead to amniotic fluid reaccumulation and the avoidance of labor. The management for uterine tenderness and monitoring for fetal distress are an important component of the management. The decision for delivery versus expectant management should be considered only in the presence of evidence that maternal and fetal ultrasound abnormalities. A single dose of corticosteroids, to enhance fetal lung maturity, should be administered and antibiotics should be given to prolong the time from PROM to delivery. There are no studies available which demonstrate that the use of tocolytics improves neonatal outcome, however, it is reasonable to tocolytics in patients with PROM to allow the administration of corticosteroids and antibiotics.

Prevalent preterm PROM to PROM to 23 weeks of age that is not associated with prior PPROM, and perinatal infection, the very premature fetus at risk of pulmonary hypoplasia. Up to 80% of infants may survive, however, in uncomplicated pregnancies such as developmental delays, delayed motor development, cardiac, patent, mental retardation, and lung disease are common. Women presenting with PROM, before fetal viability, should be advised about the potential risk compared to immediate delivery. In complete and complicated pregnancies, the availability of fetal monitoring and neonatal intensive care should be discussed.

In conclusion, PROM complicates 10% to 15% of all pregnancies. The frequency of PROM varies with gestational age, in the United States, 10,000 to 120,000 pregnancies annually Management of PROM consists of hospitalization with the option of immediate delivery versus expectant management should be evaluated continuously until delivery. More attention and research should be given to prevention of PROM as it is associated with significant maternal and fetal morbidity and mortality.

The Centers for Disease Control and Prevention (CDC) investigates the number of teenage girls between the ages of 14 and 19 infected with at least one of the following (1) Chlamydia, (2) Neisseria gonorrhoeae, (3) HSV-1, (4) HSV-2, and (5) HPV.

For this inaugural issue of “The Labrometrics” we recognize the many efforts that the Centers for Medicare and Medicaid Services (CMS) to implement competitive bidding to select the most cost-effective supplies. We would like to provide lending that is reimbursed by Medicare.

When Congress passed the Medicare reform law in 2003 as part of the CMS ‘Demonstration Project on laboratory services reimbursable under the Medicare program for services rendered to certain lab services. Congress intended that competitive bidding would artificially reduce the cost of lab testing. If Congress is small, specialized labs that are leaders in advancing patient care, and setting the standard for evidence-driven diagnostics are routines of course.

While several bills have been introduced to block the Demonstration, Congress has not acted at this time. In California and San Diego area as the first two locations for a competitive bidding demonstration.

Continued from pg 1
**Research & Development**

BV or not BV? Recent Advances in Bacterial Vaginosis (BV) ........... pg 2

**Legal Corner**

The latest on competitive bidding .pg 3

**New Test Announcements**

New tests now available at MDL...pg 4

---

**Quality Assurance Q&A**

Q: Why did I receive a “Verify date of collection” discrepancy report?

A: The date of specimen collection is a very important piece of information. Not only does it allow the laboratory to determine the length of specimen transport time to the testing facility, it is also used as the date of service for insurance billing purposes.

How this becomes a discrepancy:

- Conflicting Dates of Collection
- Future or past year listed
- Date of Birth listed in Date of Collection field
- Date of Collection is the same as the Date Received when the specimen was received via overnight delivery

How to prevent such discrepancies:

- Prepare the requisition form on the day the patient is seen in the office and not ahead of time
- Carefully check documents before submitting to our laboratory

If you have a question you would like addressed in future issues, please email your question(s) to QAQ&A@mdlab.com.

---

**New Test Announcements**

**Now available on blood specimens:**

- **Test 358** Tropheryma whippelii by Real-Time PCR
- **Test 359** Brucella Species (B. suis, B. abortus, B. canis, B. ovis, B. melitensis) by Real-Time PCR
- **Test 360** Francisella Species by Real-Time PCR (F. tularensis, F. holarctica)

**Now available on NasoSwab™ specimens:**

- **Test 1120** Severe Acute Respiratory Syndrome (SARS) by Real-Time PCR

---

**Classifieds/Ads**

- **BioExell**
  - Powder-Free, Nitrile Gloves
    - 1000/case - $54.95
  - Powder-Free, Latex Gloves
    - 1000/case - $48.95
  - E-Guard Antimicrobial Soap / Pump Bottle
    - 16 oz - $3.95

- **MyGentis**
  - Facial Tissue
    - 90 boxes/case - $54.95
  - Bathroom Tissue
    - 500 sheets/roll, 80 roll/case - $59.95

---

**WorldWide Medical Products, Inc.**

2521 Kuser Road • Hamilton, NJ 08691
866.889.WWMP(9967) • FAX: 609.570.1110
WWW.WWMPONLINE.COM

For information on placing a classified advertisement, please email sthompson@mdlab.com.