Singletons without prior sPTB

Singleton gestations without a prior spontaneous preterm birth (sPTB) represent >90% of pregnant women. This is the group where most PTB occur.

There are two main strategies for preventing PTB in this population:

First, all pregnancies should be screened for ALL risk factors for PTB (Table). Ideally this screening is done during preconception care, or at least at the first prenatal visit. In general, the majority of these women will have at least one, if not more, risk factors. Any risk factors should be addressed upon identification. Management should then follow the appropriate algorithm: i.e.

- Prior PTB;
- Smoking;
- Bacteruria;
- Multiple gestations;
- Maternal medical conditions;
- PTL;
- PPROM

Second, transvaginal ultrasound (TVU) cervical length (CL) screening can be considered (link to SMFM 2012, 2016). This screening cannot be mandated, as it may not be available in all locals. TVU CL should follow CLEAR guidelines, and be done once at 18-23 6/7 weeks of gestation. If TVU CL ≤20mm before 24 weeks of gestation, vaginal progesterone (either 200mg suppositories, or 90mg gel, daily until 36 weeks of gestation) should be prescribed.
Table: Selected risk factors for preterm birth

• Prior ob/gyn history
  – Prior PTB
  – Cervical surgery (eg cone biopsy, LEEP, etc)
  – Multiple D&Es
  – Uterine anomalies
• Maternal demographics / social
  – <17, >35 years of age
  – African-American
  – Less education (eg <12 grades)
  – Single marital status
  – Lower socioeconomic status
  – Short inter-pregnancy interval (eg <6 months)
  – Other social factors (eg poor access to care, physical abuse, acculturation)
• Nutritional status/Physical activity
  – BMI <19, or pre-pregnancy weight <50kgs (<120lbs)
  – Poor nutritional status
  – Long working hours (eg >80/week)
  – Hard physical labor (eg shift work, standing >8hours)
  – Trauma
• Infections
  – Bacterial vaginosis
  – Trichomoniasis
  – Chlamydia
  – Gonorrhea
  – Syphilis
  – Bacteriuria/Urinary tract infection
  – Severe viral infections
  – Intrauterine infections
• Assisted reproductive techniques (eg IVF)
• Multiple gestations
• Fetal disease (eg chromosome anomaly, structural abnormality, growth restriction, death, etc)
• Vaginal bleeding (eg 1st and 2nd trimester, placenta previa, abruption)
• Poly- or oligohydramnios
• Maternal medical conditions (eg hypertension, diabetes, thyroid disease, asthma, periodontal disease, etc) Maternal abdominal surgery
• Psychological (eg stress, depression)
• Adverse behaviors
  – Smoking (eg tobacco)
  – Heavy alcohol consumption
  – Cocaine
  – Heroine
• Short cervical length (CL)
• Positive fFN (use clinically only as per PTL Algorithm)
- Uterine contractions / PTL
- PPROM

This algorithm and key driver material was written by a group of experts in the field of Preterm Birth. It was then reviewed by the Society for Maternal-Fetal Medicine’s (SMFM’s) Publications Committee, Executive Committee and Risk Management.

Standardization of healthcare processes and reduced variation has been shown to improve outcomes and quality of care. SMFM developed these documents to help facilitate the standardization process. These algorithms and key driver documents are “tools” to assist clinicians and practices. The practice of medicine continues to evolve, and individual circumstances may vary. They reflect clinical and scientific advances as of the date issued and are subject to change. They are not intended to dictate a certain management or course of action. We encourage users to adapt them to their particular situation, environment and patient population.

This publication is not expected to reflect the opinions of all members of the Society for Maternal-Fetal Medicine.

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