Maine Medical
PARTNERS
Women's Health

*A department of Maine Medical Center*

# Management of Stillbirth

## Background:

Stillbirth is typically defined as a fetal death that occurs at 20 weeks or greater of gestation, or a weight greater than or equal to 350 grams. It occurs in 6 per 1,000 births.

## Risk Factors:

- Non-Hispanic black race
- Nulliparity
- Advanced maternal age
- Obesity
- Tobacco use
- Drug and alcohol use
- Multiple gestations
- Maternal medical conditions, including:
    - Hypertension
    - Diabetes
    - Antiphospholipid syndrome (APS)
    - Lupus
    - Renal disease
    - Severe cardiac disease
    - Sickle cell disease
    - Thyroid disease
    - Cholestasis of pregnancy
- Uteroplacental insufficiency / Fetal growth restriction
- Placental abruption
- Infections, including:
    - Parvovirus B19
    - Syphilis
    - Cytomegalovirus (CMV)
    - Listeria
    - Malaria
- Congenital anomalies / Aneuploidy / Genetic syndromes
- Past obstetric history (e.g., growth restriction, preeclampsia)

## Management:

1. **Obtain maternal history**
    - -Maternal medical conditions
    - -Maternal medications
    - -Potential infectious exposures
    - -Prior obstetric history
    - -Family history (three-generation pedigree, if possible)

2. **Perform maternal laboratory testing:**
   - Type & screen
   - CBC
   - Syphilis (RPR)
   - Kleihauer-Betke (KB)
   - Thyroid stimulating hormone (TSH)
   - Lupus anticoagulant
   - Anticardiolipin antibody (IgG and IgM)
   - Beta-2-glycoprotein antibody (IgG and IgM)
   - Parvovirus B19 serologies (IgG and IgM)

**Other possible laboratory testing, in selected cases:**

- Hemoglobin A1C, if suggested by maternal history or large fetal size
- CMV and toxoplasmosis serologies (IgG and IgM), if suspected
- Evaluation for inherited thrombophilias **ONLY** if:
  - Severe placental pathology
  - Significant fetal growth restriction
  - Personal or family history of thrombosis

3. **Discuss plan for delivery**
   - Most patients will desire prompt delivery, however timing is not critical
   - If early gestational age, can offer dilation and evacuation (D&E), depending on available skilled providers
     - Not able to perform fetal examination / autopsy
   - If later gestational age, discuss induction of labor:
     - **Up to 23 weeks 6 days' gestation:**
       800 mcg vaginal misoprostol followed by 400 mcg misoprostol, given buccally or vaginally every 3 hours
     - **24 weeks 0 days through 28 weeks 6 days:**
       200-400 mcg misoprostol, given by buccal or vaginal route every 4-12 hours
     - **29+ weeks' gestation**
       term labor induction protocols
   - If one previous cesarean delivery:
     - **Prior to 24 weeks' gestation:**
       800 mcg vaginal misoprostol followed by 400 mcg misoprostol, given buccally or vaginally, every 3 hours
     - **Beyond 28 weeks' gestation:**
       Cervical Foley for cervical ripening and oxytocin for induction
   - Anesthesia consult on admission

4. **Examine fetus at delivery, including:**
   - -Fetal weight
   - -Dysmorphic features (include description in maternal medical record)
   - -May opt to take photographs of abnormalities, if Genetics is not available

5. **Send placenta to Pathology to examine placenta, cord, and membranes**
   - -If concern for infection, obtain placental culture

**Offer fetal autopsy, which requires separate consent**

- -May be complete or limited autopsy, depending on parental preferences
- -If autopsy is declined, offer external examination and measurements only
- -If autopsy is declined, offer fetal whole body X-ray

6. **Offer genetic testing**
   - -Microarray preferred, as more likely to yield result per ACOG
   - -Obtain sample:
     - Placental block (1 x 1 cm) taken from below cord insertion site, **OR**
     - Umbilical cord segment (1.5 cm) closest to placenta
   - -Place sample in sterile tissue culture medium

7. **Offer examination/consult by Genetics, IF known fetal anomalies**

8. **Discuss disposition of fetus, which is either:**
   - -Burial / cremation by funeral director of choice
   - -Disposal as an anonymous specimen by the hospital
   - -Release remains to designated person, which may require transit permit

9. **Offer emotional support services, including:**
   - -Spiritual Care
   - -Local support groups

10. **Provide patient counseling, including:**
    - -Etiology of stillbirth is unknown in ~50% of cases, despite full workup
    - -Risk of recurrence is LOW for unexplained stillbirth (< 1%)
    - -Higher risk of fetal loss for women with risk factors (e.g., diabetes)
    - -Plan for increased fetal surveillance in 3rd trimester for future pregnancy
    - -Recommend delivery of future pregnancy at 39 weeks' gestation

Reference:

ACOG Obstetric Care Consensus No. 10. Management of Stillbirth. Obstet Gynecol 2020;135:e110-e132.