County of Los Angeles **Department of Health Services**

VALLEYCARE
OLIVE VIEW-UCLA MEDICAL CENTER/HEALTH CENTERS
INPATIENT OBSTETRICS
POLICY & PROCEDURE

NUMBER: 4752
VERSION: 2

SUBJECT/TITLE: **MULTIPLE GESTATION**

MD ORDER: **YES [ ] NO [ ]**

POLICY:

PURPOSE: To define multiple gestation, describe the incidence, risks and to outline the medical and nursing management during the intrapartum period.

DEPARTMENTS: **Medicine, Nursing 3D- PostPartum/Nursery**

DEFINITIONS:

PROCEDURE:

I. OVERVIEW

A The pregnant uterus contains two or more fetuses. The greater the number of fetuses, the greater the chance of morbidity and mortality.

B. A significant amount of the morbidity and mortality in multiple gestation is attributed to preterm labor. Management should be directed towards prevention.

II. INCIDENCE

A. Naturally occurring multiple gestations are associated with:

1. Race (most frequent in African Americans, least frequent in Asians)
2. Advanced maternal age
3. Higher parity
4. Higher weight and height
5. Obstetric or familial history of multiple gestation

B. Beginning in 1972, there was a dramatic increase in multiple gestations attributed to the success of infertility treatments. In 2002, more than 130,000 infants were born of multifetal gestations in the United States.

1. Approximately one out of three sets of twins is monozygotic. Monozygotic twinning is consistent throughout all racial groups and constitutes approximately one third of all natural twins.

C. By 2002, triplets occurred in 184 pregnancies per 100,000 live births.

III. DIAGNOSIS

A. Ultrasound

B. Clinical

1. Uterus large for gestational age (fundal measurement of 3 cm or more than expected after 22 weeks).
2. Two or more fetuses are palpable
3. Two or more distinct fetal heart rates by Doppler
4. Elevated Maternal Serum Alpha-Fetoprotein (MSAFP) or abnormal Triple Marker screen.

IV. RISKS OF MULTIPLE GESTATION

A. Maternal

1. Hyperemesis gravidarum
2. Anemia (folic acid and iron deficiency)
3. Premature rupture of membranes
4. Preterm labor
5. Pulmonary edema with tocolytic therapy
6. Preeclampsia
7. Gestational diabetes
8. Hydramnios/Oligohydramnios
9. Uterine atony
   a. Antepartum-dystocia
   b. Postpartum hemorrhage
10. Acute fatty liver
11. Venous thromboembolism
12. Pruritic urticarial papules and plaques of pregnancy
13. Intrahepatic Cholestasis of pregnancy

B. Placental

1. Abruption
2. Previa

3. Vasa Previa
4. Velamentous cord incision

C. Fetal/Neonatal

1. "Vanishing" fetus in the first trimester
2. Intrauterine fetal demise of one or all fetuses
3. Twin-to-twin transfusion (monozygotic)
4. Congenital malformations
5. Intrauterine growth restriction
6. Abnormal fetal presentation
7. Cord accident (monoamniotic)
8. Prematurity (50% risk) and all accompanying sequelae
9. Neonatal death

V. MEDICAL MANAGEMENT

A. Antepartum

1. If patient presents with a higher order multiple gestation, refer for multi-fetal pregnancy reduction consultation.
2. Routine prenatal labs should include testing for Group B-Strep colonization using vaginal and rectal cultures.
3. Provide or refer for dietary counseling specific for a multiple gestation. An additional 500 calories a day should be advised.
4. Preterm labor prevention

    a. Limit activity beginning at 25 weeks gestation. Prescribe bed rest at home if signs and symptoms of premature labor develop.
    b. Instruct patient on signs and symptoms of preterm labor.
    c. With three or more fetuses, refer to a maternal-fetal medicine specialist with experience in higher order multiples.
    d. Administer tocolytics as indicated.

5. Ultrasonography
    a. Attempt to determine zygosity (especially to rule out monoamnionic fetuses)
    b. Screen for congenital defects
    c. Serial Ultrasound exams for:
        i. Fetal growth
        ii. Amniotic fluid index (AFI)

iii. Placental evaluation
iv. Cervical length

6. If genetic amniocentesis is indicated, the procedure should be performed by an experienced practitioner.

7. If patient has risk factors for incompetent cervix, consider placement of a cervical cerclage.

8. Antepartum fetal testing
   a. Initiate as soon as discordant growth is diagnosed.
   b. Initiate in all other multiple gestations at the discretion of the provider, but at least at 36 weeks.
   c. Initiate in all situations in which surveillance would ordinarily be performed in a singleton pregnancy.

9. For patients with triplets or a higher order pregnancy, consider antepartum consultation with a neonatologist.

10. Hospitalization is indicated if there is an inadequate response to home management.

11. If demise of one fetus is documented, consultation with a perinatologist is indicated.

12. Delayed delivery of second twin after delivery of a pre-viable first twin can be considered in selected cases.

B. Intrapartum

1. Delivery should occur at a facility competent to provide risk-appropriate care for the maternal-fetal dyad and the newborn.

2. Have blood typed, screened and available.

3. Administration of antibiotics is recommended for patients who cultured positive for Group B-Strep at any time during pregnancy. For those patients without a known culture result, antibiotics should be administered if labor and vaginal delivery are anticipated. For planned Cesarean delivery with intact membranes, antibiotic prophylaxis is not indicated.

4. Patent intravenous access capable of delivering blood should be established (#18 gauge or larger).

5. Continuous electronic fetal monitoring of all fetuses during labor and delivery.

6. Adequate number of personnel skilled in resuscitation present in the delivery room to care for each fetus.

7. Delivery should occur in an OR setting.

8. Real time ultrasound equipment should be available in the OR.

9. Twins are relative contraindication to VBAC.

C. Delivery

1. Vaginal versus cesarean delivery depends on:

   a. Number of fetuses
   b. Fetal presentation
   c. Gestational age
   d. Condition of fetuses
   e. Labor progress
   f. Maternal complications

2. Vaginal delivery

   a. Continuous electronic fetal monitoring of both twins
   b. There should be a second obstetrician present.
   c. After delivering the first twin, monitor the second twin continuously.
   d. There are alternatives in the management of a second twin which is in transverse lie or breech presentation.
      i. Consider internal podalic version and breech extraction, or
      ii. After the first twin delivers, consider external version under ultrasound guidance.
      iii. Internal version and total breech extraction has better outcomes than external version.

3. Cesarean delivery

   a. Monoamniotic twins
   b. Non-vertex presentation of Twin A
   c. Multiple gestation pregnancies greater than twins or

triplets

d. Second twin when complications such as fetal distress or abruptio placenta occur.

VI. NURSING CONSIDERATIONS

A. Antepartum

1. Monitor patient closely for signs and symptoms of medical complications associated with multiple gestation.

2. Instruct patient in signs and symptoms of preterm labor and preventative measures.

3. Encourage patient compliance with scheduled clinic visits and medical treatment plan. Advise patient to call with any questions or concerns.

4. Antepartum testing procedures should be performed on all fetuses simultaneously whenever possible. Always verify that separate fetuses are being monitored by comparing heart rate and reactivity patterns.

5. Provide patient with referrals to social services if indicated.

B. Intrapartum/Postpartum

1. Monitor vital signs closely

2. Monitor fetuses continuously until delivery. Verify that each fetus is actually being monitored.

3. Measure and record intake and output.

4. Observe for potential complications associated with multiple gestations.

5. Establish and maintain an intravenous infusion capable of delivering blood (18G or larger).

6. Prepare for emergent operative delivery.

7. Observe carefully for uterine atony and postpartum hemorrhage.

8. Provide emotional support for patient and family.

9. If mono/mono or mono/di twins, send placenta to pathology per instructions in attached Appendix.

DOCUMENTATION: Documentation will be completed in the nursing flow sheet and in Operating Room Scheduling Office System (ORSOS).

References: PAC-LAC Prenatal and Intrapartum Protocols, 2009 ACOG Practice Bulletin # 56, October 2004 (Reaffirmed 2009)	
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