Bleeding and Associated Disorders

Interconception Care Project for California
ACOG, District IX

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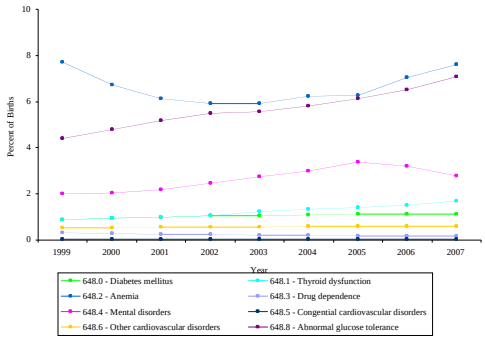
Bleeding and Associated Disorders

- Complicated 9.64% of all births between 1999-2007 in California
- Includes disorders such as:
  - anemia
  - various types of hemorrhage
  - coagulation defects

Anemia: Prevalence

- Prevalence = 7.4% of births in California between 1999-2007
- Most common causes of anemia during pregnancy are physiologic and iron deficiency anemia (accounting for 85% of anemia cases)

Pregnancy Complications



Anemia: Pregnancy Morbidity

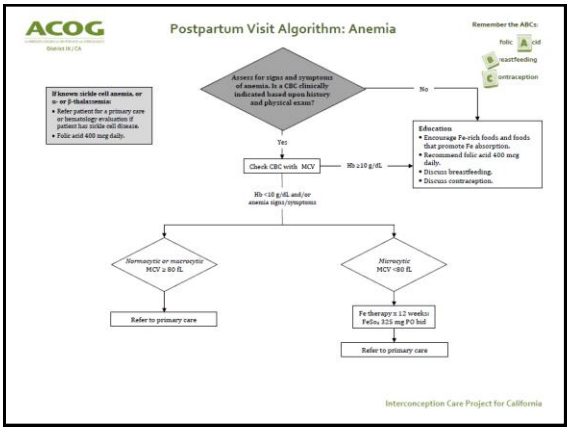
- Women of childbearing age are at risk for iron deficiency due to blood loss from menstruation.
- Pregnancy requires increased iron to increase the red cell mass, expand plasma volume and allow for growth of the fetal-placental unit.
- Anemia during the first and second trimesters of pregnancy can lead to poor pregnancy outcomes, such as preterm delivery and low birth weight; excessive blood loss during delivery in an already anemic patient can lead to significant maternal morbidity and mortality.

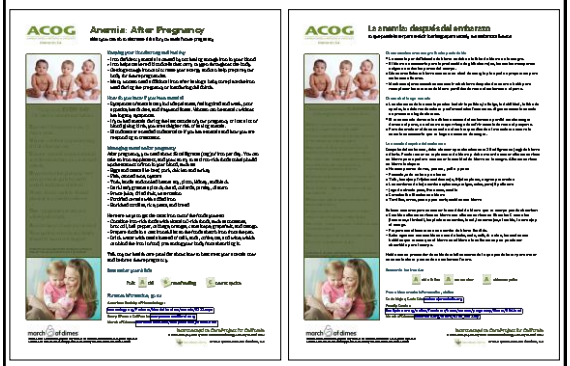
Anemia: Postpartum Morbidity

- Postpartum anemia disproportionately affects low-income and minority women.
- Imposes a substantial disease burden during the critical period of mother-infant interaction due to adverse affects on maternal mood and cognition.
- Women suffering early postpartum anemia are at increased risk of developing postpartum depression.
- Can lead to lasting developmental deficits in infants of affected mothers

Anemia: Literature Review

- Women at risk for anemia should be screened using a CBC at 4-6 weeks postpartum if risk factors are present.
- Risk factors include:
  - anemia in the third trimester
  - excessive blood loss (>500 ml) during delivery and
  - multiple gestation birth.
- If no risk factors for anemia are present, supplemental iron should be stopped at delivery.



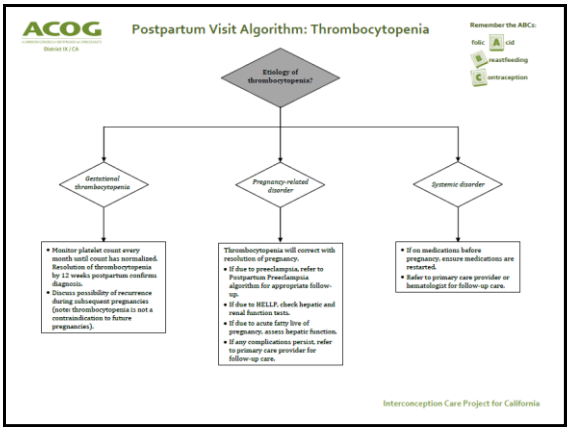


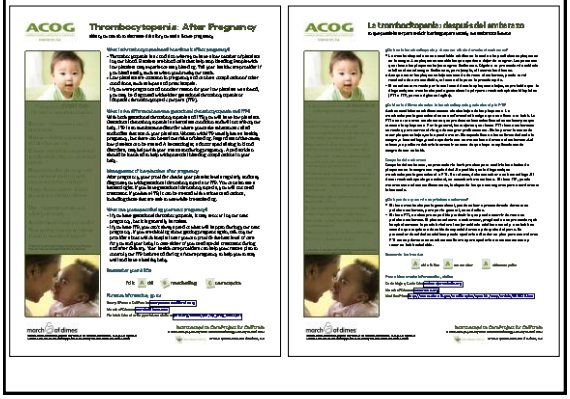
Thrombocytopenia: Prevalence and Morbidity

- Affects 6-10% of pregnancies.
- Can occur in isolation or associated with other abnormalities, such as hypertension, HELLP and microangiopathic hemolytic anemia.
- Puts patient at risk for bleeding.
- Can lead to neonatal thrombocytopenia.

Thrombocytopenia: Literature Review

- Most cases of thrombocytopenia are due to gestational thrombocytopenia. These cases will resolve by 12 weeks postpartum, and no further treatment is necessary.
- If not other causes of thrombocytopenia are discovered, patient likely has idiopathic thrombocytopenic purpura (ITP), which may be discovered for the first time during pregnancy.
- Management depends on the etiology of the patient's thrombocytopenia, as shown on the algorithm.



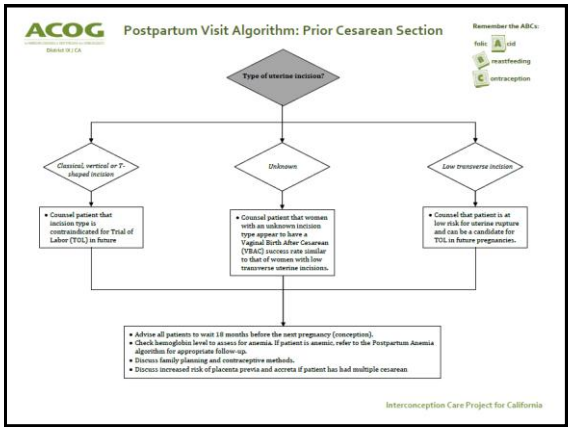


Cesarean Section: Prevalence and Morbidity

- Between 1970 and 2007, the cesarean delivery rate increased from 5% to 31.1%.
- In 2007, 18.3% of births in California were by a primary cesarean section, 13.8% were by repeat cesarean section and 0.7% were by VBAC.
- Puts patient at risk for complications such as infection, placenta previa, and uterine rupture (rupture rate of 0.6-0.9% with a single prior c-section and 0.9-3.7% with multiple prior c-sections).

Cesarean Section: Literature Review

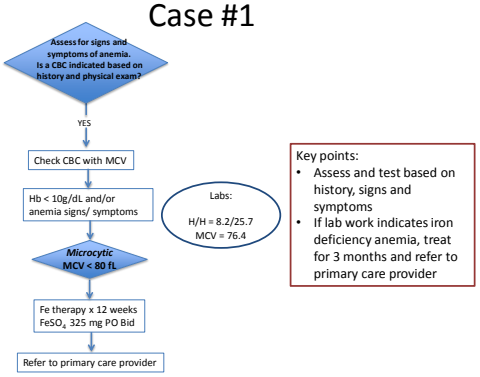
- Interconception counseling for women with prior cesarean delivery should begin immediately after delivery and continue at the postpartum visit.
- Counseling should include recommendation to wait at least 18 months before the next pregnancy to reduce risk of uterine rupture.
- Counseling should include discussion about possible modes of delivery based on patient's operative history (i.e., type of incision and repair) as outlined in the algorithm.
- For those that are candidates for a trial of labor after previous cesarean delivery (TOLAC), a vaginal delivery (VBAC) decreases maternal morbidity; decreases risk of complications in future pregnancies; and decreases the overall population cesarean section rate.



Case #1

32F G2P2 presents for her postpartum visit. She is s/p a NSVD at term complicated by a postpartum hemorrhage with an EBL of 600 ml. She is overall well, but when questioned, does report feeling more tired than after her last pregnancy and says she occasionally feels dizzy. Physical exam reveals pallor. What do you do next?

Case #1

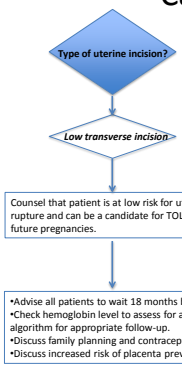


Key points:
- Assess and test based on history, signs and symptoms
- If lab work indicates iron deficiency anemia, treat for 3 months and refer to primary care provider

Case #2

30F G1P1 presents for her postpartum visit. She is s/p a pLTCS at 39+6 weeks for frank breech presentation. How do you counsel the patient?

Case #2



Key points:
- Counsel based upon incision type
- Discuss delivery options during next pregnancy and risks and benefits of TOLAC/VBAC and repeat cesarean section
- Advise on an interpregnancy interval of 18 months
- If patient had a significant amount of blood loss and/or has symptoms/signs of anemia, assess for anemia

•Advise all patients to wait 18 months before the next pregnancy (conception).
•Check hemoglobin level to assess for anemia. If patient is anemic, refer to the Postpartum Anemia algorithm for appropriate follow-up.
•Discuss family planning and contraceptive methods.
•Discuss increased risk of placenta previa and accreta if patient has had multiple cesarean sections.

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Questions?

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