Title: Low dose aspirin for the prevention of morbidity and mortality from preeclampsia

SUMMARY: Daily low-dose aspirin beginning as early as the second trimester of pregnancy reduced the occurrence of clinically important adverse health outcomes (preeclampsia, fetal growth restriction, and preterm birth) in those women at highest risk without apparent increase in harm to those exposed mothers and babies. It is less certain that women with multiple moderate risk factors may benefit from this therapy.

Rationale: Preeclampsia is a leading cause of maternal and perinatal morbidity and mortality. The rate of severe disease has been steadily increasing over the last 30 years with more than one third of serious maternal morbidity and 15% of preterm births related to preeclampsia. The most consistent predictors of high risk for this disease are previous preeclampsia, certain medical conditions, and multifetal pregnancy. Previous comprehensive systematic reviews have found antiplatelet medications (primarily low-dose aspirin) to be beneficial for the prevention of preeclampsia and the associated morbidities of fetal growth restriction (FGR) and preterm birth among women at highest risk and perhaps among women with two or more moderate risk factors. A recent systematic review in support of the 1996 USPTF recommendations for use of low dose aspirin in pregnancy cautions, however, that the magnitude of this benefit may be overestimated due to small-study effects.

Eligible patients:

1. High risk women: Low-dose ASA should be recommended when one or more of the following conditions are present:
   a. History of preeclampsia (especially if accompanied by an adverse outcome)
   b. Diabetes (Type 1 or 2)
   c. Chronic hypertension
   d. Renal disease
   e. Autoimmune disease
   f. Antiphospholipid syndrome
   g. Multifetal gestation

2. Moderately elevated risk women: Low-dose ASA may be considered when two or more of the following conditions are present:
   a. Nulliparity
   b. Advanced maternal age of 35 or greater
   c. Inter-pregnancy interval of more than 10 years
   d. High body mass index (BMI) of 30 kg/m2 or greater
   e. Family history of preeclampsia in the patient’s mother or sister
   f. Sociodemographic characteristics (African American race, low socioeconomic status)
g. Personal history factors (low birthweight or small for gestational age, previous adverse pregnancy outcome)

**Contraindications:**

- Aspirin-sensitive asthma or allergy to aspirin.
- Significant vaginal bleeding.
- Patient declines recommendation.

**Technique:** Initiate 81mg aspirin daily by mouth starting between 12 and 28 weeks of gestation. Doses reported in the literature range from 60-150 mg daily and most do not demonstrate alterations in outcome with higher or lower doses (i.e. there does not appear to be a dose response).

**Special Considerations:** There is no need to stop therapy prior to delivery, although local anesthesia custom may dictate otherwise. Currently, we stop ASA treatment at 36 weeks gestational age.

**Reference(s):**


Reviewed: 3/2/17