TITLE: LOW DOSE ASPIRIN USE IN PREGNANCY

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

**SUMMARY: Daily low-dose aspirin (60-150 mg, available US dose is 81 mg) beginning after 12 weeks of gestation reduced the occurrence of clinically important adverse health outcomes (preeclampsia, preterm birth, small for gestational age/fetal growth restriction, and perinatal mortality) in those pregnant people at high risk for preeclampsia without apparent increase in harm to exposed gestational parent and babies.**

**Rationale:** Preeclampsia is a leading cause of maternal and perinatal morbidity and mortality. The rate of severe disease has steadily increased over the last 30 years with more than one third of serious maternal morbidity, 6% of preterm births, and 19% of medically indicated 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 benefit from anti-inflammatory antiplatelet medications (primarily low-dose aspirin) for the prevention of preeclampsia and the associated morbidities of fetal growth restriction (FGR) and preterm birth among pregnant people at highest risk. More recent data strengthen prior recommendations and support the benefits of daily low dose aspirin in pregnant people with two or more moderate risk factors while also proposing that this intervention may be appropriate for some women with only one moderate risk factor. Additional emphasis is placed on the higher rates of preeclampsia and serious complications from this disease in Black pregnant people due to various societal and health inequities rather than race. Pregnancy as a result of IVF is added as a moderate risk factor.

**Eligible patients:**

1. High risk pregnant people:

Low-dose ASA should be recommended when **ONE** or more of the following conditions are present:

* 1. History of preeclampsia (especially if accompanied by an adverse outcome)
	2. Pregestational diabetes (Type 1 or 2)
	3. Chronic hypertension
	4. Renal disease
	5. Autoimmune disease
	6. Antiphospholipid syndrome
	7. Multifetal gestation
	8. Combinations of multiple moderate risk factors
1. Moderate risk pregnant people:

Low-dose ASA should be recommended when **ONE** or more of the following conditions are present:

* 1. Black race (due to social rather than biological factors)
	2. Low income

Low-dose ASA should be recommended when **TWO** or moreof the following conditions are present:

1. Nulliparity
2. Advanced maternal age of 35 or greater
3. Inter-pregnancy interval of more than 10 years
4. High body mass index (BMI) of 30 kg/m2 or greater
5. Family history of preeclampsia in the patient’s mother or sister
6. Personal history factors (low birthweight or small for gestational age, previous adverse pregnancy outcome)
7. In vitro conception

**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). The available dose in the US is 81 mg. Some experts recommend two 81 mg aspirins daily in very high risk patients.

**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):**

1. LeFevre ML, et al. Low-Dose Aspirin Use for Prevention of Morbidity and Mortality From Preclampsia: US Preventive Services Task Force. Ann Intern Med, 2014: 160:819-826.
2. US Preventive Services Task Force. Aspirin Use to Prevent Preeclampsia and Related Morbidity and Mortality: US Preventive Services Task Force Recommendation Statement. JAMA, 2021: 326(12):1186-1191.
3. Low-Dose Aspirin Use for the Prevention of Preeclampsia and Related Morbidity and Mortality: Practice Advisory. ACOG. December 2021.

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