LOW-DOSE ASPIRIN USE DURING PREGNANCY

for the prevention of preeclampsia

Low-dose aspirin prophylaxis (81 mg/day) is safe and recommended for pregnant patients at high risk of preeclampsia and should be started between 12 weeks and 28 weeks of gestation (optimally before 16 weeks) and continued daily until delivery.

DANGERS OF PREECLAMPSIA

- Preeclampsia affects 4% of pregnancies in the United States, and is a disorder of pregnancy associated with new-onset hypertension.
- It typically occurs after 20 weeks of gestation and frequently near term.
- Although the cause is unclear, it is an inflammatory syndrome that affects multiple organ systems and often is progressive.
- If untreated, preeclampsia can lead to serious, potentially fatal complications for both mother and baby:
  - Fetal growth restriction
  - Preterm birth
  - Placental abruption
  - HELLP syndrome (hemolysis, elevated liver enzymes and low platelet count — a severe form of preeclampsia)
  - Eclampsia
  - Cardiovascular disease or other organ damage

WHY ASPIRIN

- ***Effectiveness*** Meta-analysis and large RCTs demonstrate that low-dose aspirin reduces preeclampsia risk, especially for patients at high risk.
  - **2021 USPSTF Systematic Review** Relative Risk, 0.85 [95% CI, 0.75-0.95]
  - **2017 Rolnik et al. RCT: Aspirin vs. Placebo** Preeclampsia: 1.6% vs. 4.3%, p=0.004
- ***Safety*** Risks with aspirin use in pregnancy are similar to daily use in non-pregnant patients.
  - ***Maternal*** No increased risk for placental abruption, postpartum hemorrhage, or blood loss
  - ***Fetal*** No evidence of teratogenic effect; No increase in neonatal hemorrhagic risk; Use in 3rd trimester not associated with ductal closure

2021 USPSTF RECOMMENDATIONS

Risk Level	Risk Factors	Recommendation
High*	• History of preeclampsia • Multifetal gestation • Chronic hypertension • Type 1 or 2 diabetes • Kidney disease • Autoimmune disease (ie, systemic lupus erythematous, antiphospholipid syndrome)	Recommend low-dose aspirin (81 to 160 mg/day) at > 12 weeks if the patient has ≥ 1 of these high-risk factors
Moderate**	• Nulliparity • Obesity (ie, BMI >30 kg/m2) • Family history of preeclampsia (ie, mother or sister) • Black persons (due to social factors) • Lower income • Age ≥ 35 years • Personal history factors (ie, low birthweight or small for gestational age, previous adverse pregnancy outcome, >10-year pregnancy interval) • In vitro conception	Recommend low-dose aspirin at > 12 weeks if the patient has ≥ 2 moderate risk factors Consider low-dose aspirin at > 12 weeks if the patient has 1 of these moderate-risk factors
Low	Prior uncomplicated term delivery and absence of risk factors	Do not recommend low-dose aspirin

* Single risk factors that are consistently associated with the greatest risk for preeclampsia. Incidence rate would be approximately ≥ 8% in a pregnant person with ≥ 1 of these risk factors.
**These factors are independently associated with moderate risk for preeclampsia, some more consistently than others. A combination of multiple moderate-risk factors may place a pregnant person at higher risk for preeclampsia.

For more information on this and other pharmacologic interventions for healthy pregnancies, visit birthcontrolpharmacist.com/healthypreg

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