

Clinical Preventive Services for Addressing Cardiovascular Disease Risk to Reduce Pregnancy-related Deaths Among Women: A Perspective from the Endocrine Society

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Why are we here?

- “Endocrine scientists and clinicians are devoted to advancing hormone research and improving public health.”
- We specialize in caring for individuals with diabetes hypertension and obesity and performing research in populations with these conditions.
- Long history-The Endocrine Society began in 1917.

Endocrine View of CV Mortality Related to Pregnancy

- During pregnancy: hypertension disorders of pregnancy (HDP) one of top causes of maternal death (16%, CI: 14-19% of maternal deaths^)
 - Women with **Type 1 and 2 DM, hypertension and obesity** (*endocrine conditions*) are at increased risk for HDP.
- Following pregnancy: CVD morbidity and mortality increased in those who experienced preeclampsia or GDM (often premature CV deaths). Development of **hypertension** in pathway to CVD.

^Cresswell JA, Alexander M, Chong MYC, et al. Global and regional causes of maternal deaths 2009-29L a WHO systematic analysis. *Lancet Glob Health*. Published online March 7, 2025. doi:10.1016/S2214-109X(24)00560-6

Gap 1: Optimization of CVD Health Knowledge and CV Health Prior to Pregnancy

- Lack of patient and provider awareness of CVD risk factors for pregnancy
- Many pregnancies unplanned so optimization of health in women with diabetes, hypertension and/or obesity often does not take place prior to pregnancy
- Need better ways to incorporate family planning into clinical care.
- Low dose ASA can decrease rates of preeclampsia in high-risk women (includes **diabetes** and **hypertension**) but is not always recommended by clinical providers
- Lower weight women have lower rates of preeclampsia and GDM
 - does weight reduction *prior to* AND limitation of weight gain *during* pregnancy lower rates of preeclampsia and GDM? need intervention trials

Gap 2: Optimization of CVD Health Knowledge and CV Health Following Pregnancy

- Many women and providers not aware of increased future CVD risk a/w pregnancy complicated by preeclampsia or GDM.
 - As a result, adverse pregnancy outcome history often not obtained in primary or specialty care.
 - CVD risk factor of T2D often not screened for in women following preeclampsia or GDM.
 - CVD risk reduction efforts often not initiated in women with prior preeclampsia or GDM; eg including evidence-based intensive lifestyle modification or metformin (not FDA approved for prevention) often not implemented in women with prior GDM for T2D prevention.
- How much does lowering of traditional CVD risk factors lower CVD death in women with prior preeclampsia or GDM? (or more tailored intervention) Need prospective studies.

Moving ahead

- *The Endocrine Society* would like to partner with National Academies and other organizations to decrease CV death related to pregnancy using our clinical and research expertise in the understanding of the pathophysiology of hormones in health and disease for the prevention and treatment of diabetes, hypertension and obesity prior to, during and following pregnancy.
- Please call on us eseely@bwh.harvard.edu
- Thank you for this opportunity.