



IMA Public Health Committee
Reproductive Health Subcommittee

Impact of Pregnancy on Preexisting Maternal Medical Conditions

Pregnancy carries a baseline, low level risk for the expecting mother. However, women with certain preexisting medical conditions face higher pregnancy related risks that can impact maternal or fetal health (morbidity) or place the mother at increased risk of death (mortality). For conditions with known increased risk of mortality, obstetric care providers may counsel patients against pregnancy. However, nearly half of pregnancies in the United States are unintended, therefore, the majority of counseling occurs after pregnancy has already been established.

Counseling regarding each specific condition and various options for pregnancy management must be provided in a non-directive way, such that the obstetric provider respects patient autonomy and involves the patient in shared decision making. This allows patients and families to make an informed decision regarding pregnancy continuation.

The following is not a comprehensive list. This list provides examples of preexisting maternal medical conditions and their potential impacts. Many others exist and will vary by patient.

Maternal Cancers¹:

- Pregnancy can have a dramatic impact on cancer staging, treatment, and overall prognosis. A concurrent pregnancy can impact detection, surgical resection, diagnostic imaging, staging, or treatment regimens; thus, the prognosis of the mother may be negatively impacted.
- Cancer treatments can cause significant fetal harm. Radiation therapy and chemotherapeutic agents are used with caution secondary to an increased risk of birth defects or miscarriage. To reduce fetal risk, teams may delay

maternal treatment or modify the treatment regimen, which may result in worse maternal prognosis or hasten death.

- Tumor biomarkers used for surveillance may be inaccurate due to the physiologic changes of pregnancy.
- Hormone sensitive tumors may progress as a result of the pregnancy.
- High likelihood for significant fetal harm and poor obstetrical outcomes in the setting of certain maternal cancers

Cardiovascular Conditions²:

- Cardiovascular disease constitutes 26.5% of U.S. pregnancy related deaths and is the leading cause of maternal death in the United States.
- While most cardiovascular conditions can be safely managed during pregnancy, some cardiac conditions carry such a high risk of death during pregnancy or the postpartum period that the standard of medical care is to recommend pregnancy termination.
- Examples of underlying cardiovascular conditions with significant risk of morbidity or mortality include Marfan's syndrome with dilated aortic root, severe heart failure, pulmonary arterial hypertension, previous peripartum cardiomyopathy with residual impairment, severe valvular disease (mitral, aortic), complex congenital heart disease, mechanical valve, unrepaired cyanotic heart disease, and Fontan circulation.³
- Maternal cardiovascular disease can have a dramatic impact on fetal outcomes in continuing pregnancies; complications include growth restriction, medically indicated premature birth and the ensuing risk of prematurity, and stillbirth.

Organ Transplant Recipients³:

- There are an increasing number of women of childbearing age who have received organ transplants and are on immunosuppression. While pregnancy outcomes are generally excellent after renal and dual renal/liver transplant, some transplants confer much higher fetal and maternal risk (such as cardiac and lung). A nuanced discussion is often necessary depending on the specifics of the transplant and maternal health.
- Some immunosuppressive medications that prevent organ rejection are not advised during pregnancy. This increases the risk of organ rejection which can be life threatening and impact short term fetal and maternal health and long-term survival.

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