



2010

Medication Use in Pregnant Women with Chronic Medical Conditions

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Recommended Citation

Zeitlin, Deborah S., "Medication Use in Pregnant Women with Chronic Medical Conditions" (2010).
Scholarship and Professional Work – COPHS. 180.
https://digitalcommons.butler.edu/cophs_papers/180

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FOCUS: Medication and Pregnancy

Medication Use During Pregnancy – What's The Problem?

- A growing number of pregnant women are facing chronic health issues such as diabetes, hypertension and depression.
- Approximately 2/3 of women who give birth in the U.S. each year are **prescribed at least one medication** other than a vitamin or mineral supplement during pregnancy.
- There is a severe **lack of clinical research** on the effects of medications on pregnant women and their fetuses. Only a dozen medications are approved by the FDA for use during pregnancy; all are for gestation or birth related issues such as anesthesia or nausea.
- **Healthcare providers** are not always aware of which medications or dosages are safe to prescribe during pregnancy.
- Consumers often have **misperceptions about the safety of vitamins, supplements or herbal remedies** during pregnancy. In addition, many consumers do not report such use to their healthcare providers.
- Including pregnant women in clinical trials and research can bring a host of ethical issues and decisions about fetal protection, maternal risk, and even paternal consent.

Source: *American Journal of Public Health*

IPN's Response

IPN is committed to providing timely, accurate information to health care professionals and consumers about best practices during pregnancy.

Among these efforts, Indiana Perinatal Network...

- **Utilizes monthly e-bulletins and alerts** to provide up-to-date communication on new advances in research
- **Convenes a Perinatal Mood Disorders Task Force** to serve as a resource on medications that can safely be used to treat depression during pregnancy
- **Supports the State Breastfeeding Coordinator** to stay current on medications that are safe for women to take while breastfeeding
- **Educates providers about screening and treatment of substance use** during pregnancy; in addition to alcohol and tobacco use, pregnant women are increasingly abusing prescription medications
- **Advocates for all healthcare providers** to adopt a Learner's Stance when interacting with patients. The goal is to help providers learn to communicate more clearly with patients about their pregnancies and to approach different cultural practices and health behaviors in a respectful, nonjudgmental way.

Clinical Update: Medication Use in Pregnant Women with Chronic Medical Conditions

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A recent preliminary report from the National Center for Health Statistics shows that the number of live births in the United States decreased in 2008¹-- however, the rate of live births per 1000 women has increased in women 40 to 49 years. Older women potentially have already been diagnosed and are actively being treated for chronic medical conditions that include hypertension, asthma, diabetes and depression. Reports have shown 5% of pregnant women have hypertension and the risk increases with age.² Asthma incidence ranges from 4% to 9% in pregnant women.³ Pre-existing diabetes is prevalent in 12% of pregnant women in the United States.⁴ Finally, depression is very common in women between the ages of 15 to 44 years.⁵

Chronic hypertension is more prevalent in women who are obese, African-American and older than 35 years. Untreated hypertension may cause cardiovascular or cerebrovascular events in the mother, but the fetus is at risk for premature birth, perinatal mortality, intrauterine growth restrictions, cesarean delivery, and superimposed preeclampsia.⁶ Medications are usually required in the third trimester or when the blood pressure is greater than 160/105mmHg. Avoidance of ACE inhibitors and angiotensin-receptor blockers is necessary to prevent renal agenesis and malformed cardiovascular and central nervous systems.⁷ Helpful non-pharmacologic recommendations include sodium restriction, appropriate vitamin supplementation, exercise, and avoidance of alcohol and tobacco.⁸

Untreated asthma may increase the need for hospitalization or emergency room visits, oral corticosteroids, and cesarean

delivery as well as the risk for preeclampsia, premature birth, and low birth weight.^{6,9} Continuing current asthma medications is safer than stopping therapy, and budesonide is the preferred inhaled corticosteroid.¹⁰ Reinforcement of proper inhaler technique, medication adherence, control of environmental triggers and allergens, and smoking cessation is also beneficial for pregnant women.¹¹

Uncontrolled or poorly treated diabetes may cause spontaneous abortions, increased birth weight, still births, intrauterine growth restrictions, and fetal abnormalities.¹² The preferred anti-diabetic agent is insulin, since it does not cross the placenta. When used appropriately it maintains glycemic control and prevents hypoglycemia. NPH is the preferred longer acting insulin. All short acting insulins, regular, lispro and aspart, are considered pregnancy category B by the Food and Drug Administration (FDA). Two oral agents that may be used especially if they were successful prior to pregnancy are metformin and glyburide.¹³ During pregnancy it is still important to maintain good blood glucose levels with appropriate monitoring, take a prenatal vitamin with sufficient amount of folic acid, eat foods that are consistent with a diabetic diet, and exercise regularly.¹⁴

Depressed mothers may want to stop medications when they find out they are pregnant, but uncontrolled depression may be more detrimental to the fetus than medications' side effects. Risks to the mother include poor self-care and medication adherence, suicidal ideation, illicit drug and alcohol usage, low weight gain, postpartum depression and self-injury behavior. Ramifications to the fetus are premature birth, low birth weight,

and admission to the neonatal intensive care unit upon delivery. Ultimately the child may have delayed cognitive and emotional development.⁶ When choosing an antidepressant always assess the risks and benefits of a medication prior to use since there are no efficacy trials. Caution is warranted with paroxetine, since the FDA classifies it as a pregnancy class D. If an agent needs to be started during pregnancy, ideally wait until after the first trimester to minimize miscarriage and teratogenesis risks.^{15, 16}

When treating pregnant women with chronic medical conditions, always treat them to the appropriate goals of their condition with recommended medications. If possible, ensure counseling prior to conception so the patient knows what changes should be made for the safety of the fetus as well as the mother. With medication therapy weigh the risks of the medications' side effects from that of the condition. Treatment should also include non-pharmacologic therapy as well as regular patient monitoring to ensure a safe pregnancy.

For a list of references, visit www.indianaperinatal.org/ZeitlinReferences.pdf