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Safe Management of Chronic Pain in Pregnancy in an Era of Opioid Misuse and Abuse

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ABSTRACT

Safe and effective management of chronic pain in pregnancy is challenging. Use of over-the-counter analgesics, opioids, opioid substitution therapies, complementary and alternative therapies, antidepressants, and anxiolytics each have benefits and risks for the mother and neonate that must be considered. Because of their potency, opioids are often used despite associated risks for adverse effects, abuse, diversion, and addiction. Development of a pain management protocol for the counsel and care of pregnant women with pain is necessary.

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Pregnant women with chronic pain diagnoses present a unique challenge for obstetric care providers. Some present for prenatal care with pain related to prior injuries, surgeries, or other causes, and they are already taking opioid analgesics for episodic or continuous treatment. Others have pain issues that develop during pregnancy or are exacerbated by pregnancy and need to take opioid analgesics while pregnant to manage their conditions (Babb, Koren, & Einarson, 2010; Kellogg, Rose, Harms, & Watson, 2011; Kennedy, 2011). Failure to adequately treat pain can have a negative effect on maternal health, resulting in depression, anxiety, and physical manifestations such as hypertension (Babb et al., 2010; Bruehl, Chung, Jirjis, & Birdiepalli, 2005; Kennedy, 2011). As the use of analgesics and other medications for pain becomes more common and acceptable in pregnancy, it is necessary for obstetric care providers to be knowledgeable as to their safe use to manage maternal pain with the lowest risk for harmful effects on the mother, fetus, and neonate (Hadi, daSilva, Natale, Boyd, & Morley-Forster, 2006; Kellogg et al., 2011; Wunsch, Stanard, & Schnoll, 2003).

Background and Significance

For women who require pain management during pregnancy, there is little research available regarding what modalities are safe for fetal development and produce the least occurrence of adverse pregnancy outcomes. Ethically, there are difficulties with developing well-designed studies of any type of medications or therapies in pregnancy due to the potential effects on the fetus. It is even more difficult to conduct research regarding analgesic medications, opioid substitution therapies, and opiate agonists due to the subjective nature of pain management (Winklbaur-Hausknost et al., 2012). Issues that arise concern how the treatments will affect the neonate at delivery, whether the clinician's assessment of efficacy of treatment is congruent with that of the patient, and whether the treatment or lack of treatment could produce unfavorable outcomes in the mother, fetus, or neonate, or long term in the infant or child.

The scarcity of information about safe use of pain medications is compounded by the lack of access to appropriate care for women with chronic

pain in pregnancy. These women have legitimate pain syndromes but may not have access to physical therapy, appropriate pain management, or alternative therapies, due to lack of insurance or inadequate coverage for pain management services. Third-party payers often deny or limit adjunctive nonmedication options such as physical therapy, acupuncture, chiropractic care, and exercise programs (Atkinson, Schatman, & Fudin, 2014). Pain management specialists may not see women in pregnancy due to the lack of evidence-based standards for care in this population, or because they are not reimbursed for their services. Typically, nonobstetric pain in pregnancy is either undertreated or not treated at all (Babb et al., 2010). Obstetric care providers may shoulder the responsibility for pain management with little or no training, and no clear treatment guidelines.

The purpose of this article is to present the evidence for continuation or revision of pain management therapies during pregnancy. Findings from a review of the literature of current trends in pain management in pregnancy is presented with an examination of perinatal outcomes for those infants exposed in utero to the commonly prescribed analgesics and other medications used to treat pain. Emphasis is placed on prescribed opioids due to the increasing prevalence of use. Although they have great potency as analgesics, they may pose substantial risks for adverse effects, abuse, diversion, and addiction (Atkinson et al., 2014). Strategies and resources for developing a pain management protocol are presented. Practitioners can utilize the information obtained to lead in formulation of evidence-based practices for management of chronic pain in pregnancy.

Review of the Literature

A review of the literature included searching multiple databases from medicine, nursing, and psychology. The searches were conducted for articles published from 2000 through the first quarter of 2014. Keywords included *pregnancy* and *narcotics, opiates, opioid analgesics*, *methadone, buprenorphine, chronic pain, suboxone, and subutex*. Databases used for this search were the following: Academic Search Complete, Alt Health Watch, CINAHL, Cochrane Databases, ERIC, Health Source: Consumer Edition, MEDLINE, PsycInfo, Psychology and Behavioral Sciences Collection, and PubMed. Reference lists from included articles were also searched for other sources. Publication types included were research studies, systematic reviews of literature, case studies, reviews of selected literature, and retrospective reviews.

The scarcity of information about pain medications in pregnancy is compounded by the lack of access to care for the women who need it most.

Use of Analgesics in Pregnancy

Kennedy (2011) estimated that as many as 85% of pregnant women use some type of medication during pregnancy, and that analgesics are the most commonly ingested after vitamins and supplements. The exact prevalence of recommended or prescribed analgesics in pregnancy is difficult to determine, but from available reports their worldwide use appears to be steadily increasing even though many are classified as pregnancy category B or C by the U.S. Food and Drug Administration (FDA) (Andrade et al., 2004; Briggs, Freeman, & Yaffe, 2011). In the United States, 20% of pregnant women reported first-trimester opioid use in 2009. Among Tennessee Medicaid-insured pregnant women, use of opioid analgesics increased nearly 2 fold from 1995 to 2009 (Epstein et al., 2013). Furthermore, in a population-based cohort study of 194,937 singleton pregnancies in Norway between March 2004 and January 2009, about 6% of the women were dispensed opioid analgesics before, during, or after pregnancy. Most of the women were prescribed a weak short-acting opioid such as codeine in combination with paracetamol (acetaminophen) and less was dispensed after pregnancy was diagnosed. A small group of women ($N = 271$) took codeine throughout their pregnancies (Handal, Engeland, Rønning, Skurtveit, & Furu, 2011).

Opioid Analgesics

Opioid analgesics are becoming more commonly prescribed as awareness of chronic pain in pregnancy increases and as retrospective studies begin to demonstrate safety profiles (Hadi et al., 2006). One of the biggest risks of chronic opioid use during and outside of pregnancy is dependence, which often leads to misuse and abuse (Babb et al., 2010). As these medications are more widely available, abuse potential is higher. For example, Kelly et al. (2011) reported an increase in oxycodone consumption from 8.4% to 17.2% over an 18-month period during which their study of narcotic abuse in pregnancy was being conducted.

For many years, the opiate class of drugs appeared to have a relatively low-risk profile for