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Date: 04 February 2020

Sources Searched: Medline, Embase, PsycINFO.

#### **Management of Substance Abuse in Pregnancy**

See full search strategy

#### 1. Management and monitoring of opioid use in pregnancy

Author(s): Rausgaard N.L.K.; Ibsen I.O.; Jorgensen J.S.; Lamont R.F.; Ravn P.

Source: Acta Obstetricia et Gynecologica Scandinavica; Jan 2020; vol. 99 (no. 1); p. 7-15

Publication Date: Jan 2020 Publication Type(s): Review

PubMedID: 31197827

Available at Acta obstetricia et gynecologica Scandinavica - from Wiley Online Library

Abstract:Opioid use during pregnancy has serious consequences for mother and baby. The true extent of the problem is unknown and there is a need for better screening. Existing guidelines with respect to the management of pregnant women with opioid use are based on limited evidence. To improve recommendations for optimal identification, management, and treatment, publications on opioids in pregnancy were reviewed. Published literature from 2007 to 2017 was searched in PubMed, Cochrane and Embase databases. The review employed 60 publications from 210 studies identified, that were of varying quality and included randomized controlled trials, systematic reviews, meta-analyses, and Cochrane reviews. The prevalence of opioid use in pregnancy is underestimated. Screening by urine testing and self-reporting is acceptable to identify fetal exposure. To minimize risk, opioid agonist pharmacotherapy should replace the continued use of opioids or detoxification. Current guidelines recommend methadone and buprenorphine equally. However, recent studies indicate that buprenorphine has advantages over methadone. Accordingly, we suggest buprenorphine as first-line therapy. Future studies should elaborate on better objective screening methods to prevent the consequences of fetomaternal opioid exposure. Copyright © 2019 Nordic Federation of Societies of Obstetrics and Gynecology

#### 2. Smoking cessation in pregnancy: An update for maternity care practitioners

Author(s): Diamanti A.; Schoretsaniti S.; Rovina N.; Gratziou C.; Katsaounou P.A.; Vivilaki V.;

Papadakis S.

Source: Tobacco Induced Diseases; 2019; vol. 17

Publication Date: 2019
Publication Type(s): Review

Available at Tobacco induced diseases - from Europe PubMed Central - Open Access

Abstract:INTRODUCTION This paper provides an up-to-date summary of the effects of smoking in pregnancy as well as challenges and best practices for supporting smoking cessation in maternity care settings. METHODS We conducted a qualitative review of published peer reviewed and grey literature. RESULTS There is strong evidence of the effects of maternal tobacco use and secondhand smoke exposure on adverse pregnancy outcomes. Tobacco use is the leading preventable cause of miscarriage, stillbirth and neonatal deaths, and evidence has shown that health effects extend into childhood. Women who smoke should be supported with quitting as early as possible in pregnancy and there are benefits of quitting before the 15th week of pregnancy. There are a variety of factors that are associated with tobacco use in pregnancy (socioeconomic status, nicotine addiction, unsupportive partner, stress, mental health illness etc.). Clinical-trial evidence has found counseling, when delivered in sufficient intensity, significantly increases cessation rates among pregnant women. There is evidence that the use of nicotine replacement therapy (NRT) may increase cessation rates, and, relative to continued smoking, the use of NRT is considered safer than continued smoking. The majority of women who smoke during pregnancy will require support throughout their pregnancy, delivered either by a trained maternity care provider or via referral to a specialized hospital or community quit-smoking service. The 5As (Ask, Advise, Assess, Assist, Arrange) approach is recommended for organizing screening and treatment in maternity care settings. Additionally, supporting smoking cessation in the postpartum period should also be a priority as relapse rates are high. CONCLUSIONS There have been several recent updates to clinical practice regarding the treatment of tobacco use in pregnancy. It is important for the latest guidance to be put into practice, in all maternity care settings, in order to decrease rates of smoking in pregnancy and improve pregnancy outcomes. Copyright © 2019 Diamanti A.

### 3. Opioid Detoxification in Pregnancy: Systematic Review and Meta-Analysis of Perinatal Outcomes

Author(s): Wang M.J.; Kuper S.G.; Harper L.M.; Sims B.; Paddock C.S.; Dantzler J.; Muir S.

Source: American Journal of Perinatology; 2019; vol. 36 (no. 6); p. 581-587

Publication Type(s): Review

PubMedID: 30231274

Abstract: Objective We sought to compare the efficacy and safety of detoxification from opioids compared with opioid replacement therapy (ORT) during pregnancy. Study Design We searched PubMed, Embase, Cochrane Library, and ClinicalTrials.gov from inception to June 2017 for Englishlanguage randomized-controlled trials or cohort studies that compared detoxification with ORT. We sought studies with outcomes data on maternal abstinence at the time of delivery, neonatal abstinence syndrome (NAS), stillbirth, and preterm birth (PTB). We calculated pooled relative risks (RRs) with a random-effects model, assessed heterogeneity using the chi-square test for heterogeneity, and quantified heterogeneity using the I 2 test. We assessed publication bias using funnel plots and the Harbord test. Results Three cohort studies met the inclusion criteria; eligible studies included 235 women with opioid use disorder in pregnancy. Maternal detoxification was associated with increased risk of relapse (RR = 1.91; 95% confidence interval [CI] = 1.14-3.21); however, no treatment differences were observed for the rates of NAS (RR = 0.99; 95% CI = 0.38-2.53) or PTB (RR = 0.39; 95% CI = 0.10-1.60). Conclusion Our findings suggest an increased risk of relapse with detoxification treatment compared with ORT; however, detoxification does not alter the risk of PTB or NAS. Further studies should confirm our findings and explore mechanisms to fight the current opioid epidemic. Copyright © 2019 by Thieme Medical Publishers, Inc.

**Database: EMBASE** 

#### 4. Opioid Use in Pregnancy

Author(s): Tobon A.L.; Habecker E.; Forray A.

**Source:** Current Psychiatry Reports; Dec 2019; vol. 21 (no. 12)

Publication Date: Dec 2019
Publication Type(s): Review

PubMedID: 31734808

Available at Current psychiatry reports - from SpringerLink - Medicine

Abstract:Purpose of Review: Perinatal opioid use is a major public health problem and is associated with a number of deleterious maternal and fetal effects. We review recent evidence of perinatal outcomes and treatment of opioid use disorder (OUD) during pregnancy. Recent Findings: Opioid exposure in pregnancy is associated with multiple obstetric and neonatal adverse outcomes, with the most common being neonatal opioid withdrawal syndrome (NOWS). Treatment with buprenorphine or methadone is associated with NOWS, but neither medication appears to have significant adverse effects on early childhood development. Buprenorphine appears to be superior to methadone in terms of incidence and severity of NOWS in exposed infants. The long-term effects of opioid exposure in utero have been inconclusive, but recent longitudinal studies point to potential differences in brain morphology that may increase vulnerability to future stressors. Summary: Maintenance therapy with methadone or buprenorphine remains the standard of care for pregnant women with OUD given its consistent superiority to placebo in terms of rates of illicit drug use and pregnancy outcomes. New non-pharmacologic management options for NOWS appear promising. Future research is needed to further evaluate the effects of opioid exposure in utero and determine

the optimal delivery model for maintenance therapy. Copyright © 2019, Springer Science+Business Media, LLC, part of Springer Nature.

**Database: EMBASE** 

#### 5. Barriers to screening pregnant women for alcohol or other drugs: A narrative synthesis.

Author(s): Oni, Helen T; Buultjens, Melissa; Abdel-Latif, Mohamed E; Islam, M Mofizul

Source: Women and birth: journal of the Australian College of Midwives; Dec 2019; vol. 32 (no. 6);

p. 479-486

Publication Date: Dec 2019

Publication Type(s): Journal Article Review

PubMedID: 30528816

Abstract:BACKGROUNDMaternal alcohol or other drug use during pregnancy is associated with a range of adverse health outcomes for mothers and their unborn child. The antenatal period presents an opportunity for health professionals to offer routine screening for alcohol or other drugs, to then provide intervention and referral for treatment and/or specialised support services. However, literature indicates that limited screening practices currently exist in maternity care settings.AIMTo identify barriers to screening pregnant women for alcohol or other drugs in maternity care settings, from the perspectives of healthcare professionals.METHODSA comprehensive literature search was conducted in October 2017 to identify relevant studies. Seven databases that index health and social sciences literature, and google scholar, were searched. Eligible articles were subjected to critical appraisal. Extracted data from the eligible studies were synthesised using narrative synthesis.FINDINGSNine studies were eligible for this review. The review identified seven key barriers to screening for alcohol or other drugs in pregnancy, namely competing priorities and time constraint; lack of adequate screening skills and clear protocol; relationship between healthcare providers and pregnant women; healthcare providers' perceptions; under-reporting or none/false disclosure; inconclusive evidence regarding the risk of alcohol or other drug use in pregnancy; and concerns about guilt and anxiety. CONCLUSIONSThe narrative review revealed a range of barriers to screening for alcohol or other drugs in pregnancy. Further research in minimising the barriers is required to establish women-centred, evidence-base screening practices.

## 6. Impact of nicotine replacement and electronic nicotine delivery systems on fetal brain development

Author(s): Sailer S.; Sebastiani G.; Garcia-Algar O.; Andreu-Fernandez V.

**Source:** International Journal of Environmental Research and Public Health; Dec 2019; vol. 16 (no.

24)

Publication Date: Dec 2019
Publication Type(s): Review
PubMedID: 31847348

Available at International journal of environmental research and public health - from Europe

PubMed Central - Open Access

Available at International journal of environmental research and public health - from Free Medical

Journals . com

Available at International journal of environmental research and public health - from ProQuest

(Health Research Premium) - NHS Version

Available at International journal of environmental research and public health - from Unpaywall

Abstract: Maternal tobacco smoking during pregnancy remains a major public health issue. The neurotoxic properties of nicotine are associated with fetal neurodevelopmental disorders and perinatal morbimortality. Recent research has demonstrated the effects of nicotine toxicity on genetic and epigenetic alterations. Smoking cessation strategies including nicotine replacement therapy (NRT) and electronic nicotine delivery systems (ENDS) show lack of clear evidence of effectiveness and safety in pregnant women. Limited trials using randomized controls concluded that the intermittent use formulation of NRT (gum, sprays, inhaler) in pregnant women is safe because the total dose of nicotine delivered to the fetus is less than continuous-use formulations (transdermal patch). Electronic nicotine delivery systems (ENDS) were hyped as a safer alternative during pregnancy. However, refill liquids of ENDS are suspected to be cytotoxic for the fetus. Animal studies revealed the impact of ENDS on neural stem cells, showing a similar risk of pre-and postnatal neurobiological and neurobehavioral disorders to that associated with the exposure to traditional tobacco smoking during early life. There is currently no clear evidence of impact on fetal brain development, but recent research suggests that the current guidelines should be reconsidered. The safety of NRT and ENDS is increasingly being called into question. In this review, we discuss the special features (pharmacodynamics, pharmacokinetics, and metabolism) of nicotine, NRT, and ENDS during pregnancy and postnatal environmental exposure. Further, we assess their impact on pre-and postnatal neurodevelopment.Copyright © 2019 by the authors. Licensee MDPI, Basel, Switzerland.

### 7. The Efficacy of Technology-Based Interventions for Alcohol and Illicit Drug Use Among Women of Childbearing Age: A Systematic Review and Meta-Analysis

Author(s): Hai A.H.; Hammock K.; Velasquez M.M.

Source: Alcoholism: Clinical and Experimental Research; Dec 2019; vol. 43 (no. 12); p. 2464-2479

**Publication Date:** Dec 2019 **Publication Type(s):** Review

PubMedID: 31557336

Available at Alcoholism, clinical and experimental research - from Wiley Online Library

Abstract: Background: Alcohol and illicit drug use is prevalent among women of childbearing age and may lead to higher risk for substance-exposed pregnancy and related health consequences for both women and their offspring. Technology-based interventions (TBIs) are increasingly used to prevent or reduce substance use among women of childbearing age. The efficacy of these approaches, however, is unclear. This review critically reviewed existing research evidence from randomized controlled trials (RCTs) on the efficacy of TBIs in preventing and reducing alcohol and illicit drug use among childbearing-aged women. Method(s): Seven electronic databases were searched to identify eligible studies. Two reviewers independently screened studies, extracted data, and assessed risks of bias. Robust variance estimation in meta-regression was used to estimate effect sizes and conduct moderator analyses. Result(s): Fifteen RCTs including 3,488 participants were included in the systematic review. Meta-analysis results based on 13 RCTs suggest that TBIs were efficacious relative to control conditions in preventing and reducing substance use among women of childbearing age (d = 0.19, 95% CI = 0.02, 0.35). Preliminary moderator analysis results suggest that the efficacy of TBIs might not vary by participant age, race/ethnicity, the type of technology used, or whether a virtual health assistant was used. TBIs' efficacy in terms of specific substance use types (alcohol use and illicit drug use) or control types (inactive control and active controls) was inconclusive, due to the limited number of studies in each category. Conclusion(s): This systematic review and meta-analysis found evidence of TBIs' efficacy in reducing alcohol and illicit drug use among women of childbearing age. Implications for future research and practice are discussed. Copyright © 2019 by the Research Society on Alcoholism

#### 8. Management of the Cardiovascular Complications of Substance Use Disorders During Pregnancy

Author(s): Edelson P.K.; Bernstein S.N.

Source: Current Treatment Options in Cardiovascular Medicine; Nov 2019; vol. 21 (no. 11)

Publication Date: Nov 2019
Publication Type(s): Review

Available at Current Treatment Options in Cardiovascular Medicine - from SpringerLink - Medicine

Abstract:Purpose of review: Substance use disorder in pregnancy and subsequent cardiovascular complications are on the rise in the USA. The care of pregnant women with substance use disorder is complex, and requires a thorough understanding of mechanisms of action, pathophysiology, and cardiovascular response during pregnancy. The goal of this review is to provide information about the most common drugs of abuse in pregnancy and to recommend management guidelines. Recent findings: Pregnant women with substance use disorder are at increased risk of significant cardiovascular complications, both as a direct effect of acute intoxication as well as the secondary risk from infection and cardiotoxicity associated with chronic use. This risk must be considered in the antepartum management, delivery, and postpartum periods. Summary: Understanding the increased cardiovascular risk of pregnant women with substance use disorder, as well as specific drug interactions, anesthesia considerations, best practices, and management considerations, is important for all clinicians caring for this population. Copyright © 2019, Springer Science+Business Media, LLC, part of Springer Nature.

Database: EMBASE

#### 9. Maternity Care for Pregnant Women with Opioid Use Disorder: A Review

**Author(s):** Rizk A.H.; Simonsen S.E.; Roberts L.; Taylor-Swanson L.; Lemoine J.B.; Smid M. **Source:** Journal of Midwifery and Women's Health; Sep 2019; vol. 64 (no. 5); p. 532-544

**Publication Date:** Sep 2019 **Publication Type(s):** Review

PubMedID: 31407485

Available at Journal of midwifery & women's health - from Wiley Online Library

Abstract: Opioid misuse is a problem that is complex and widespread. Opioid misuse rates are rising across all US demographics, including among pregnant women. The opioid epidemic brings a unique set of challenges for maternity health care providers, ranging from ethical considerations to the complex health needs and risks for both woman and fetus. This article addresses care for pregnant women during the antepartum, intrapartum, and postpartum periods through the lens of the opioid epidemic, including screening and counseling, an interprofessional approach to prenatal care, legal considerations, and considerations for care during labor and birth and postpartum. Providers can be trained to identify at-risk women through the evidence-based process of Screening, Brief Intervention, and Referral to Treatment (SBIRT) and connect them with the appropriate care to optimize outcomes. Women at moderate risk of opioid use disorder can be engaged in a brief conversation with their provider to discuss risks and enhance motivation for healthy behaviors. Women with risky opioid use can be given a warm referral to pharmacologic treatment programs, ideally comprehensive prenatal treatment programs where available (a warm referral is a term used when a provider, with the patient's permission, contacts another provider or another service him or herself rather than providing a phone number and referral number). Evidence regarding care for the pregnant woman with opioid use disorder and practical clinical recommendations are provided.Copyright © 2019 by the American College of Nurse-Midwives

#### 10. Supporting breastfeeding for women on opioid maintenance therapy: a systematic review

Author(s): Doerzbacher M.; Chang Y.-P.

Source: Journal of Perinatology; Sep 2019; vol. 39 (no. 9); p. 1159-1164

**Publication Date:** Sep 2019 **Publication Type(s):** Review

**PubMedID:** 31263203

Abstract:Objective: Despite evidence to support breastfeeding, rates remain low in women on opioid maintenance therapy (OMT). The goal of this review was to synthesize current knowledge regarding interventions to promote breastfeeding in women on OMT. Study design: A systematic search of databases including PubMed, CINAHL, PsycINFO, Embase, Scopus, Web of Science, and the Cochrane database of systematic reviews was conducted. Key words included breastfeeding, lactation, opioid use disorder, and opioid maintenance therapy. Risk of bias was assessed by two reviewers. Result(s): Four quasi-experimental studies met inclusion criteria. Improved rates of breastfeeding reached statistical significance in all four. Three studies had moderate to serious risk of bias related to confounding variables. Interventions shared common features, including an integrated approach, a well-prepared multidisciplinary team, nonseparation of mother and newborn, and patient centered care. Conclusion(s): Further research should explore barriers and facilitators to breastfeeding in this vulnerable population. Copyright © 2019, The Author(s), under exclusive licence to Springer Nature America, Inc.

Database: EMBASE

#### 11. Alcohol Use in Pregnancy and Miscarriage: A Systematic Review and Meta-Analysis.

**Author(s):** Sundermann, Alexandra C; Zhao, Sifang; Young, Chantay L; Lam, LeAnn; Jones, Sarah H; Velez Edwards, Digna R; Hartmann, Katherine E

Source: Alcoholism, clinical and experimental research; Aug 2019; vol. 43 (no. 8); p. 1606-1616

**Publication Date: Aug 2019** 

Publication Type(s): Journal Article Review

**PubMedID:** 31194258

Available at Alcoholism, clinical and experimental research - from Wiley Online Library

Abstract: To systematically review and critically evaluate studies reporting alcohol exposure during pregnancy and miscarriage. We searched PubMed, EMBASE, PsycINFO, and ProQuest Theses for publications from January 1970 to January 2019. We identified studies about alcohol exposure during pregnancy and miscarriage. Information about study population, alcohol exposure assessment, outcome definition, covariates, and measures of association was collected. We assessed study quality using an adapted Newcastle-Ottawa Scale. Data were abstracted by 2 investigators independently. We conducted a random-effects meta-analysis to calculate the association between alcohol exposure and miscarriage risk and performed subgroup analyses to determine robustness of results to study differences. For studies reporting dose-specific effects, a pooled dose-response association was estimated using generalized least squares regression with and without restricted cubic spline terms for number of drinks consumed per week. Of 2,164 articles identified, 24 were eligible for inclusion. Meta-analysis of data from 231,808 pregnant women finds those exposed to alcohol during pregnancy have a greater risk of miscarriage compared to those who abstained (odds ratio [OR] 1.19, 95% confidence intervals [CI] 1.12, 1.28). Estimates did not vary by study design, study country, or method of alcohol ascertainment. For alcohol use of 5 or fewer drinks per week, each additional drink per week was associated with a 6% increase in miscarriage risk (OR 1.06, 95% CI 1.01, 1.10). Common study limitations reflect challenges inherent to this research, including

difficulty recruiting participants early enough in pregnancy to observe miscarriage and collecting and quantifying information about alcohol consumption during pregnancy that accurately reflects use. This review provides evidence that alcohol consumption during pregnancy is associated with a dose-mediated increase in miscarriage risk. Future studies evaluating change in alcohol use in pregnancy are needed to provide insight into how alcohol consumption prior to pregnancy recognition impacts risk.

Database: Medline

#### 12. Marijuana use in pregnancy: A review

Author(s): Thompson R.; Dejong K.; Lo J.

Source: Obstetrical and Gynecological Survey; Jul 2019; vol. 74 (no. 7); p. 415-428

**Publication Date:** Jul 2019 **Publication Type(s):** Review

PubMedID: 31343707

Available at Obstetrical & gynecological survey - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:Importance Marijuana is the most commonly used dependent substance in pregnancy. The main active chemical of marijuana (delta-9-tetrahydrocannabinol [THC]) readily crosses the placenta, and cannabinoid receptors have been identified in fetal brain and placenta. As a result, prenatal marijuana use could potentially have detrimental impact on fetal development. Objective This review aims to summarize the existing literature and current recommendations for marijuana use while pregnant or lactating. Evidence Acquisition A PubMed literature search using the following terms was performed to gather relevant data: "cannabis,""cannabinoids,""marijuana,""fetal outcomes, ""perinatal outcomes, ""pregnancy, ""lactation." Results Available studies on marijuana exposure in pregnancy were reviewed and support some degree of developmental disruption, including an increased risk of fetal growth restriction and adverse neurodevelopmental consequences. However, much of the existing prenatal marijuana research was performed in the 1980s, when quantities of THC were lower and the frequency of use was less. Additionally, most human studies are also limited and conflicting as most studies have been observational or retrospective, relying primarily on patient self-report and confounded by polysubstance abuse and small sample sizes, precluding determination of a causal effect specific for marijuana. Given the paucity of evidence, it is currently recommended to avoid using marijuana while pregnant or when breastfeeding. Conclusion and Relevance There is a critical need for research on effects in pregnancy using present-day THC doses. Once the adverse perinatal effects of marijuana exposure are identified and well characterized, patient education and antenatal surveillance can be developed to predict and mitigate its impact on maternal and fetal health. Target Audience Obstetricians and gynecologists, family physicians. Learning Objectives After participating in this activity, the provider should be better able to counsel patients regarding prenatal marijuana use; assess patients during pregnancy for marijuana use; and explain recommendations regarding marijuana use while breastfeeding.Copyright © 2019 Wolters Kluwer Health, Inc. All rights reserved.

#### 13. Care and Treatment Recommendations for Pregnant Women with Opioid Use Disorder

Author(s): Reising V.A.; Bergren M.D.; Bennett A.

Source: MCN. The American journal of maternal child nursing; Jul 2019; vol. 44 (no. 4); p. 212-218

Publication Date: Jul 2019
Publication Type(s): Review
PubMedID: 31261299

Available at MCN. The American journal of maternal child nursing - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:BACKGROUND: Recent data suggest a significant increase in use of opioids among pregnant women. In the United States, reported rates of neonatal abstinence syndrome increased from 1.5 per 1,000 to 6.0 per 1,000 live births from 2000 to 2013. Use of opioids, both pharmacologic and nonpharmacologic, during pregnancy exposes women and babies to increased risks of adverse health outcomes. Professional organizations recommend addressing the complex needs of women who use opioids during pregnancy. OBJECTIVE(S): The purpose is to review the role of nurses in the prenatal setting caring for pregnant women with opioid use disorder. METHOD(S): We conducted a literature search using the CINAHL, PubMed, and PsycInfo electronic databases through January 2018 to identify best practices for referring women to treatment from the prenatal care office. Search terms included "substance use disorder," "pregnancy," "prenatal care," referral," and referral pathway." RESULTS: From our search, 68 abstracts were identified as relevant for review. Eight articles were selected for the analysis based on our focus. The findings assisted in development of our recommendations for nurses. CLINICAL IMPLICATIONS: During prenatal care, nurses can screen for opioid use disorder, develop positive relationships, and refer to treatment. This care should be based on values-neutral strategies to promote healthy outcomes for pregnant women and their babies.

## 14. Childhood neurodevelopment after prescription of maintenance methadone for opioid dependency in pregnancy: A systematic review and meta-analysis

**Author(s):** Monnelly, Victoria J.; Hamilton, Ruth; Chappell, Francesca M.; Mactier, Helen; Boardman, James P.

Source: Developmental Medicine & Child Neurology; Jul 2019; vol. 61 (no. 7); p. 750-760

Publication Date: Jul 2019

Publication Type(s): Journal Peer Reviewed Journal Journal Article

Available at Developmental medicine and child neurology - from Wiley Online Library

Available at Developmental medicine and child neurology - from Unpaywall

Abstract: Aim: To systematically review and meta-analyse studies of neurodevelopmental outcome of children born to mothers prescribed methadone in pregnancy. Method: MEDLINE, Embase, and PsycINFO were searched for studies published from 1975 to 2017 reporting neurodevelopmental outcomes in children with prenatal methadone exposure. Results: Forty-one studies were identified (2283 participants). Eight studies were amenable to meta-analysis: at 2 years the Mental Development Index weighted mean difference of children with prenatal methadone exposure compared with unexposed infants was -4.3 (95% confidence interval [CI] -7.24 to -1.63), and the Psychomotor Development Index weighted mean difference was -5.42 (95% CI -10.55 to -0.28). Seven studies reported behavioural scores and six found scores to be lower among methadoneexposed children. Twelve studies reported visual outcomes: nystagmus and strabismus were common; five studies reported visual evoked potentials of which four described abnormalities. Factors that limited the quality of some studies, and introduced risk of bias, included absence of blinding, small sample size, high attrition, uncertainty about polydrug exposure, and lack of comparison group validity. Interpretation: Children born to mothers prescribed methadone in pregnancy are at risk of neurodevelopmental problems but risk of bias limits inference about harm. Research into management of opioid use disorder in pregnancy should include evaluation of childhood neurodevelopmental outcome. What this paper adds: 1. Children born to opioiddependent mothers prescribed methadone are at risk of neurodevelopmental impairment. 2. Exposed infants have lower Mental Development Index and Psychomotor Development Index scores than unexposed children. 3. Atypical visual evoked potentials, strabismus, and nystagmus have increased prevalence. 4. Estimates of impairment may be biased by intermediate to poor quality evidence. (PsycINFO Database Record (c) 2019 APA, all rights reserved) (Source: journal abstract)

Database: PsycINFO

### 15. Smoking in pregnancy: pathophysiology of harm and current evidence for monitoring and cessation

Author(s): McDonnell B.P.; Regan C.

Source: Obstetrician and Gynaecologist; Jul 2019; vol. 21 (no. 3); p. 169-175

Publication Date: Jul 2019
Publication Type(s): Review

Available at The Obstetrician & Gynaecologist - from Wiley Online Library

Available at The Obstetrician & Gynaecologist - from Unpaywall

Abstract:Key content: Smoking in pregnancy is a risk factor for miscarriage, stillbirth, placental abruption, preterm birth, low birthweight and neonatal morbidity and mortality. The adverse effects of cigarette smoke are primarily driven by carbon monoxide, tar and nicotine. Psychosocial interventions are effective in helping women to quit smoking during pregnancy. There is weak evidence that nicotine replacement therapy (NRT) with behavioural support can improve cessation rates in pregnancy. Electronic cigarettes are more popular among smokers, but evidence of their safety and effectiveness in pregnancy are lacking. Learning objectives: To understand the pathophysiology of harm from cigarette smoking. To describe the role of exhaled carbon monoxide testing among pregnant women. To review the evidence on the safety and use of NRT and electronic cigarettes as methods of cessation. Copyright © 2019 Royal College of Obstetricians and Gynaecologists

**Database: EMBASE** 

## 16. Improving health providers smoking cessation care in pregnancy: A systematic review and meta-analysis

**Author(s):** Bar-Zeev Y.; Bonevski B.; Lim L.L.; Twyman L.; Skelton E.; Gould G.S.; Gruppetta M.; Palazzi K.; Oldmeadow C.

Source: Addictive Behaviors; Jun 2019; vol. 93; p. 29-38

Publication Date: Jun 2019
Publication Type(s): Review

PubMedID: 30684819

Abstract:Introduction: Health providers are lacking in their provision of smoking cessation care during pregnancy. The aim of this study was to systematically review all available global studies on the effectiveness of interventions in improving health providers' provision of smoking cessation care during pregnancy. Method(s): Five databases were searched, Inclusion criteria included all intervention study types. Two reviewers screened abstracts and full texts independently. Interventions were characterized according to the Effective Practice Of Care taxonomy, Randomeffects meta-analyses examined intervention effects on smoking cessation care components based on the 5As. Estimates were number of participants reporting each outcome, or mean score, transformed into Cohen's d. Crude meta-regressions, and meta-analysis subgrouping, were performed to examine whether intervention effects for 'Ask''Advise' and 'Assist' differed by intervention components. Result(s): Of 3165 manuscripts, 16 fulfilled inclusion criteria. Pooled analysis showed significant small to large intervention effects on the different care components (Cohen's d ranging from 0.47 for 'Ask' (95%CI 0.13-0.81) to 1.12 (95%CI 0.45-1.79) for 'Setting a quit date'). Crude meta-regression suggested that for 'Ask' having a theoretical basis may improve effectiveness (Cohen's d difference 0.62, 95% CI 0.12-1.1). Subgrouping the meta-analysis suggested that audit and feedback possibly increases intervention effectiveness for 'Advise' and 'Assist'. Conclusion(s): Interventions designed to improve provision of smoking cessation care during

pregnancy show a small increase in care components. Studies vary substantially in design, intervention components, and outcome measurement, impacting ability to synthesize available data. Audit and feedback and enhancing intervention design by using behaviour change theories may improve effectiveness. Registration: PROSPERO CRD42016030143.Copyright © 2019 Elsevier Ltd

Database: EMBASE

#### 17. Analgesia, Opioids, and Other Drug Use During Pregnancy and Neonatal Abstinence Syndrome

Author(s): Jones H.E.; Kraft W.K.

Source: Clinics in Perinatology; Jun 2019; vol. 46 (no. 2); p. 349-366

Publication Date: Jun 2019
Publication Type(s): Review

PubMedID: 31010564

**Abstract:**When opioid misuse rises in the United States, pregnant women and their neonates are affected. This article summarizes the use of Food and Drug Administration-approved products, including methadone, buprenorphine, and the combination formulation of buprenorphine and naloxone to treat adult opioid use disorder during the perinatal period. All labels include pregnancy, neonatal, and lactation information and note the accepted use of these medications during the perinatal period if the benefits outweigh the risks. A summary of the neonatal abstinence syndrome definition, its assessment tools, treatment approaches, and future genetic directions are provided. Copyright © 2019 Elsevier Inc.

Database: EMBASE

#### 18. Effects of unconventional recreational drug use in pregnancy.

**Author(s):** Chomchai, Summon; Phuditshinnapatra, Jariya; Mekavuthikul, Pattaraporn; Chomchai, Chulathida

Source: Seminars in fetal & neonatal medicine; Apr 2019; vol. 24 (no. 2); p. 142-148

Publication Date: Apr 2019

Publication Type(s): Journal Article Review

PubMedID: 30744980

Abstract: Recreational drug toxicity is a rapidly evolving aspect in clinical practice. The prevalence of recreational drug abuse in the past decade has achieved an epidemic scale due to invention of new agents and ease of accessibility to the abused drugs. "Unconventional recreational drugs" is the term that includes new psychoactive drugs and medications diverted for recreational goals. Misuse of unconventional recreational drugs during pregnancy can affect both the pregnant woman and the fetus. However, the problems are usually unrecognized and overlooked by healthcare professionals. In this articles, obstetric complications, teratogenicity and neonatal abstinence syndrome from exposure during pregnancy to synthetic cannabinoids, synthetic cathinones, tramadol, kratom, olanzapine, quetiapine, ketamine and ketamine are reviewed. The main purpose is to create awareness about maternal, fetal and neonatal effects of these unconventional recreational drugs, so healthcare professionals will have improved vigilance for these under-recognized issues.

#### 19. Adverse reproductive outcomes associated with fetal alcohol exposure: a systematic review.

Author(s): Akison, L K; Moritz, K M; Reid, N

Source: Reproduction (Cambridge, England); Apr 2019; vol. 157 (no. 4); p. 329-343

**Publication Date:** Apr 2019

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article Systematic Review

PubMedID: 30653461

Abstract: Fetal alcohol exposure results in well-characterised neurobehavioural deficits in offspring, which form the basis for diagnosing fetal alcohol spectrum disorder. However, there is increasing interest in the full range of health complications that can arise in children and adults with this disorder. We used a systematic review approach to locate all clinical and preclinical studies across a broad range of health outcomes in offspring exposed to prenatal alcohol. Our search encompassed four databases (PubMed, CINAHL, EMBASE and Web of Science) and titles/abstracts from retrieved studies were screened against strict inclusion/exclusion criteria. This review specifically evaluated studies reporting on reproductive outcomes in both males and females. A total of 23 studies were included, 5 clinical and 18 preclinical. Although there was a wide range in the quality of reporting across both clinical and preclinical studies, and variable results, trends emerged amongst the reproductive measures that were investigated. In females, most studies focussed on age at first menarche/puberty onset, with evidence for a significant delay in alcohol-exposed offspring. In males, offspring exposed to prenatal alcohol had altered testosterone levels, reduced testes and accessory gland weights and reduced sperm concentration and semen volume. However, further studies are required due to the paucity of clinical studies, the narrow scope of female reproductive outcomes examined and inconsistencies in outcomes across preclinical studies. We recommend that adolescents and individuals of reproductive age diagnosed with f-etal alcohol spectrum disorder be assessed for reproductive dysfunction to allow appropriate management of their reproductive health and fertility.

Database: Medline

#### 20. Screening for substance use in pregnancy and the newborn

Author(s): Polak K.; Kelpin S.; Terplan M.

Source: Seminars in Fetal and Neonatal Medicine; Apr 2019; vol. 24 (no. 2); p. 90-94

Publication Type(s): Review

PubMedID: 30770326

Abstract:Substance use during pregnancy is common, costly and associated with maternal and newborn health consequences. Assessment of substance use should be integrated into prenatal care. Substance use identification methods include patient interview, screening instruments, and biological testing. In this review, we critically evaluate screening and testing for substance use during pregnancy, highlighting the benefits and barriers of integrated assessment into prenatal care. We also discuss the limitations and negative consequences that should be considered when implementing screening and/or testing procedures. Lastly, we provide recommendations for the ethical implementation of screening and testing for substance use in the context of prenatal care. Copyright © 2019 Elsevier Ltd

#### 21. Medical complications of opioid use disorder in pregnancy

Author(s): Prasad M.; Jones M.

Source: Seminars in Perinatology; Apr 2019; vol. 43 (no. 3); p. 162-167

Publication Date: Apr 2019
Publication Type(s): Review

PubMedID: 30871728

Abstract:Women with opioid use disorder are at increased risk of other medical complications of pregnancy. Providing care for such complex patients requires the ability to 1) acknowledge addiction as a chronic disease, 2) incorporate the altered physiology of pregnancy, and 3) devise a treatment plan that can effectively manage acute conditions. A basic tenet of care is rooted in experience, rather than evidence, but includes stabilization of opiate use disorder (OUD) as a primary goal of management of other medical complications of pregnancy. Proceeding with treatment for other medical conditions will be suboptimal without stabilization of the underlying chronic disease process. This chapter outlines some associated medical complications of OUD both in general and some of which are unique to pregnancy: infectious diseases, soft tissue infections, endocarditis, cholestasis of pregnancy, and overdose.Copyright © 2019

Database: EMBASE

### 22. Anesthesia considerations and post-operative pain management in pregnant women with chronic opioid use

Author(s): Soens M.A.; He J.; Bateman B.T.

Source: Seminars in Perinatology; Apr 2019; vol. 43 (no. 3); p. 149-161

**Publication Date:** Apr 2019 **Publication Type(s):** Review

PubMedID: 30791974

Abstract: The prevalence of opioid use disorder in pregnancy has escalated markedly in recent years. Chronic opioid use during pregnancy poses several challenges for providing adequate analgesia and anesthesia in the peripartum period. These challenges include the potential for withdrawal, opioid tolerance and opioid-induced hyperalgesia. Here we discuss alterations in analgesic pharmacokinetics and pharmacodynamics that are associated with chronic opioid use. In addition, when treating pain in patients with opioid use disorder it is important to distinguish between different subgroups. In this review, we will discuss practical management strategies for parturients with (1) untreated opioid use disorder, (2) parturients on medication-assisted treatment (methadone, buprenorphine) and (3) patients recovering from opioid use disorder that are currently abstinent. Finally, we offer an overview of non-opioid strategies that may be utilized as part of a multimodal approach to providing optimal analgesia in this patient population. Copyright © 2019 Elsevier Inc.

#### 23. Pharmacological treatment of opioid use disorder in pregnancy

Author(s): Rodriguez C.E.; Klie K.A.

Source: Seminars in Perinatology; Apr 2019; vol. 43 (no. 3); p. 141-148

Publication Date: Apr 2019
Publication Type(s): Review

PubMedID: 30755340

Abstract:Pharmacotherapy, or medication-assisted treatment (MAT), is a critical component of a comprehensive treatment plan for the pregnant woman with opioid use disorder (OUD). Methadone and buprenorphine are two types of opioid-agonist therapy which prevent withdrawal symptoms and control opioid cravings. Methadone is a long-acting mu-opioid receptor agonist that has been shown to increase retention in treatment programs and attendance at prenatal care while decreasing pregnancy complications. However methadone can only be administered by treatment facilities when used for OUD. In contrast, buprenorphine is a mixed opioid agonist-antagonist medication that can be prescribed outpatient. The decision to use methadone vs buprenorphine for MAT should be individualized based upon local resources and a patient-specific factors. There are limited data on the use of the opioid antagonist naltrexone in pregnancy. National organizations continue to recommend MAT over opioid detoxification during pregnancy due to higher rates of relapse with detoxification.Copyright © 2019 Elsevier Inc.

Database: EMBASE

#### 24. Models of care for opioid dependent pregnant women

Author(s): Johnson E.

Source: Seminars in Perinatology; Apr 2019; vol. 43 (no. 3); p. 132-140

**Publication Date:** Apr 2019 **Publication Type(s):** Review

PubMedID: 30981471

**Abstract:**As the opioid crisis continues to exist in the United States, opioid use in pregnancy is becoming a more common occurrence. Left untreated, it may result in an increased risk for adverse outcomes for both the mother and her unborn child. Unfortunately, women with opioid use disorders often face numerous barriers when trying to access prenatal care services including limited availability or treatment options, stigma, legal consequences, co-morbid psychiatric disorders, and trauma exposure. A care model that integrates prenatal care, medication assisted treatment and behavioral health services delivered in a trauma-informed environment can improve prenatal care attendance and thus have far-reaching positive implications for both the woman and her newborn child.Copyright © 2019

#### 25. Breastmilk feeding for mothers and infants with opioid exposure: What is best?

Author(s): Bogen, Debra L; Whalen, Bonny L

Source: Seminars in fetal & neonatal medicine; Apr 2019; vol. 24 (no. 2); p. 95-104

**Publication Date:** Apr 2019

Publication Type(s): Journal Article Review

PubMedID: 30922811

Abstract:With rare exception, breastfeeding is the optimal way to feed infants, and has special benefits for women and infants with perinatal opioid exposure. Infants breastfed and/or fed their mother's own breastmilk experience less severe opioid withdrawal symptoms, have shorter hospital stays, and are less likely to be treated with medication for withdrawal. The specific impact of mothers' milk feeding on opioid withdrawal may be related to the act of breastfeeding and associated skin-to-skin contact, qualities of breastmilk, healthier microbiome, small amounts of opioid drug in breastmilk, or a combination of these. Women with opioid use disorder face significant breastfeeding obstacles, including psychosocial, behavioral, concomitant medications, and tobacco use and thus may require high levels of support to achieve their breastfeeding goals. They often don't receive information to make informed infant feeding decisions. Hospital practices such as prenatal education, rooming-in and having a policy that minimizes barriers to breastfeeding are associated with increased breastfeeding rates.

Database: Medline

#### 26. Opioid use disorder during pregnancy: An overview.

Author(s): Carter, Lillian C; Read, Molly A; Read, Laura; Nicholas, Joyce S; Schmidt, Eric

Source: JAAPA: official journal of the American Academy of Physician Assistants; Mar 2019; vol. 32

(no. 3); p. 20-24

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

**PubMedID:** 30741850

Available at JAAPA: official journal of the American Academy of Physician Assistants - from Free

Medical Journals . com

Available at JAAPA: official journal of the American Academy of Physician Assistants - from Ovid

(LWW Total Access Collection 2019 - with Neurology)

**Abstract:**Women with opioid use disorder who become pregnant are a particularly vulnerable population and require a comprehensive treatment approach for mother and fetus. Research is continuing on opioid use disorder, effects of opioid use on the fetus, and best treatment approaches. This article reviews current recommendations and guidelines for treatment.

#### 27. Marijuana Use in Pregnancy: An Updated Look at Marijuana Use and Its Impact on Pregnancy.

Author(s): Stickrath, Elaine

Source: Clinical obstetrics and gynecology; Mar 2019; vol. 62 (no. 1); p. 185-190

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

PubMedID: 30531376

Available at Clinical obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

**Abstract:**This article aims to provide an updated look at the use of marijuana in the United States and its impact on pregnancy. First, the prevalence of marijuana use is examined, including use both in and outside of pregnancy. The literature surrounding attitudes and beliefs with regard to use in pregnancy is reviewed. The impact on pregnancy outcomes is reviewed along with the evidence of marijuana's impact on neural development of the fetus. Finally, clinical considerations for providers are discussed.

**Database:** Medline

#### 28. Stimulant Use in Pregnancy: An Under-recognized Epidemic Among Pregnant Women.

Author(s): Smid, Marcela C; Metz, Torri D; Gordon, Adam J

Source: Clinical obstetrics and gynecology; Mar 2019; vol. 62 (no. 1); p. 168-184

**Publication Date:** Mar 2019

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Review

PubMedID: 30601144

Available at Clinical obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

**Abstract:**Stimulant use, including cocaine, methamphetamines, ecstasy, and prescription stimulants, in pregnancy is increasingly common. In the United States, stimulants are the second most widely used and abused substances during pregnancy and pregnant women using stimulants in pregnancy are at increased risk of adverse perinatal, neonatal, and childhood outcomes. In this review, we describe the pharmacology, pathophysiology, and epidemiology of stimulants, summarize the maternal and neonatal effects of perinatal stimulant use, and outline treatment options for stimulant use disorders among pregnant women. Development of effective treatment strategies for stimulant use disorders identified among pregnant women are urgently needed.

#### 29. Alcohol Use in Pregnancy.

Author(s): Dejong, Katherine; Olyaei, Amy; Lo, Jamie O

Source: Clinical obstetrics and gynecology; Mar 2019; vol. 62 (no. 1); p. 142-155

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

PubMedID: 30575614

Available at Clinical obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Abstract: Alcohol exposure during pregnancy results in impaired growth, stillbirth, and fetal alcohol spectrum disorder. Fetal alcohol deficits are lifelong issues with no current treatment or established diagnostic or therapeutic tools to prevent and/or ameliorate some of these adverse outcomes. Despite the recommendation to abstain, almost half of the women consume alcohol in pregnancy in the United States. This review focuses on the trends in prenatal alcohol exposure, implications for maternal and fetal health, and evidence suggesting that preconception and the prenatal period provide a window of opportunity to intervene, mitigate, and ideally curtail the lifetime effects of fetal alcohol spectrum disorder.

Database: Medline

#### 30. Tobacco Use During Pregnancy.

Author(s): Crume, Tessa

Source: Clinical obstetrics and gynecology; Mar 2019; vol. 62 (no. 1); p. 128-141

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

PubMedID: 30668557

Available at Clinical obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

**Abstract:**Smoking during pregnancy is the most common preventable cause of infant morbidity and mortality. Cessation by the third trimester has consistently been associated with improved birth outcomes; however, the majority of women who obtain cessation during pregnancy, relapse in the first year postpartum. The majority of women who smoke during pregnancy developed their addiction to tobacco in early life, thus the need to intervene in the familial transmission of nicotine dependence is clear. This review discusses the epidemiology of tobacco use amongst pregnant women and factors associated with cessation. Specific intervention strategies are discussed and recommendations are provided to clinicians.

#### 31. Substance Abuse in Pregnancy.

Author(s): Ryan, Shawn A

Source: Clinical obstetrics and gynecology; Mar 2019; vol. 62 (no. 1); p. 112-117

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

PubMedID: 30664586

Available at Clinical obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

**Abstract**:Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Like many other chronic diseases, addiction often involves cycles of relapse and remission. It is key that clinicians understand it as such and treat it appropriately with evidence-based interventions including medication-assisted treatment.

**Database:** Medline

#### 32. Caring for Pregnant Women with Opioid Use Disorder

Author(s): Lee Y.W.; Saia K.

Source: Current Obstetrics and Gynecology Reports; Mar 2019; vol. 8 (no. 1); p. 9-14

**Publication Date:** Mar 2019 **Publication Type(s):** Review

Available at Current Obstetrics and Gynecology Reports - from SpringerLink - Medicine

Available at Current Obstetrics and Gynecology Reports - from Unpaywall

Abstract: Purpose of Review: The US opioid epidemic continues historic trends of disproportionately affecting women. However, attention to the rise in neonatal opioid withdrawal syndrome (NOWS) and other types of neonatal care often overshadow the urgent need for improved and more wideranging maternal treatment in the peripartum period. Recent Findings: This review aims to highlight the trends in maternal morbidity and mortality related to substance use disorder (SUD), to discuss the under-funding of woman-focused interventions, and to discuss medication-assisted treatment (MAT) options for women with SUD. We found that the rates of pregnancy-related mortality are highest for SUD-related deaths and remains at crisis levels. Summary: Women continue to face barriers to treatment access, and there is a critical need to provide new mothers in recovery with more comprehensive and supportive care in the peripartum period. Copyright © 2019, The Author(s).

### 33. Systematic literature review on which maternal alcohol behaviours are related to fetal alcohol spectrum disorders (FASD).

Author(s): Roozen, Sylvia; Peters, Gjalt-Jorn Ygram; Kok, Gerjo; Townend, David; Nijhuis, Jan; Koek,

Ger; Curfs, Leopold

Source: BMJ open; Dec 2018; vol. 8 (no. 12); p. e022578

Publication Date: Dec 2018

**Publication Type(s):** Meta-analysis Journal Article Systematic Review

PubMedID: 30573481

Available at BMJ open - from Europe PubMed Central - Open Access

Abstract:OBJECTIVESFetal alcohol spectrum disorders (FASD) is a worldwide problem. Maternal alcohol consumption is an important risk factor for FASD. It remains unknown which alcohol consumption patterns most strongly predict FASD. The objective of this study was to identify these.DESIGNSystematic literature review.METHODSWe searched in PubMed, PsychINFO, PsycARTICLES, ERIC, CINAHL, Embase and MEDLINE up to August 2018. The query consisted of keywords and their synonyms related to FASD, pregnancy and behaviour. Studies were excluded when not published in English, were reviews or involved non-human subjects. Substantial heterogeneity precluded aggregation or meta-analysis of the data. Instead, data were qualitatively inspected.RESULTSIn total, 21 studies were eligible for further data analysis. All studies that measured both maternal alcohol drinking behaviours and FASD reported retrospective data on maternal drinking patterns, employing both continuous and categorical measures and exhibiting substantial heterogeneity in measures of alcohol consumption (eg, timing of exposure, quantification of alcohol measure and definition of a standard drink). Study quality improved over time and appeared higher for studies based on active case ascertainment, especially when conducted in schools and when behaviour was assessed through interviews.CONCLUSIONSWe aimed to identify specific maternal drinking behaviour(s) related to FASD. The state of the literature precludes such conclusions. Evidence-based preventive measures necessitate identifying which prenatal alcohol drinking behaviour(s) are most in need of intervention. Therefore, we formulate three recommendations for future research. First, future studies can optimise the value of the collected dataset through specifying measurements and reporting of maternal drinking behaviours and avoiding categorised measures (nominal or ordinal) whenever possible. Second, samples should not be selected based on FASD status, but instead, FASD status as well as maternal alcohol consumption should both be measured in a general population sample. Finally, we provide 10 reporting guidelines for FASD research.

#### 34. Pharmaceutical strategies for smoking cessation during pregnancy

Author(s): Barboza J.

Source: Expert Opinion on Pharmacotherapy; Dec 2018; vol. 19 (no. 18); p. 2033-2042

**Publication Date:** Dec 2018 **Publication Type(s):** Review

PubMedID: 30332554

Abstract:Introduction: Tobacco use is the most preventable cause of death worldwide, with over 7 million deaths per year. Smoking during pregnancy causes harm to the mother, fetus, and can result in problems for the infant from childhood into adulthood. Practitioners should ask all expectant mothers about tobacco use. For expectant mothers who smoke or recently quit, practitioners should advice to quit and provide psychosocial interventions. Rates of smoking during pregnancy differ between geographical locations, with estimates of 10.8% in the UK and 7.2% in the US. Practitioners should provide expectant mothers unable to quit smoking with information about the risks and benefits of pharmacotherapy and use a patient-centered approach to determine the use. Although there is no definitive evidence on birth outcomes, nicotine replacement therapy and bupropion are adequate pharmacotherapies to help those unable to quit. Areas covered: Herein, this author looks at the various pharmaceutical strategies to help patients cease smoking and provides expert perspectives on the subject. Expert opinion: Additional research on pharmacotherapy is warranted, especially with varenicline. Practitioners working with pregnant patients should be familiar with the evidence for pharmacotherapy in smoking cessation during pregnancy. This evidence can be difficult to navigate due to conflicting results and limitations with the trials. Copyright © 2018, © 2018 Informa UK Limited, trading as Taylor & Francis Group.

Database: EMBASE

# 35. Are digital interventions for smoking cessation in pregnancy effective? A systematic review and meta-analysis

**Author(s):** Griffiths, Sarah Ellen; Parsons, Joanne; Naughton, Felix; Fulton, Emily Anne; Tombor, Ildiko; Brown, Katherine E

Source: Health Psychology Review; Dec 2018; vol. 12 (no. 4); p. 333-356

Publication Date: Dec 2018

Publication Type(s): Journal Peer Reviewed Journal Journal Article

**PubMedID: 29912621** 

Available at Health psychology review - from Unpaywall

**Abstract:**Smoking in pregnancy remains a global public health issue due to foetal health risks and potential maternal complications. The aims of this systematic review and meta-analysis were to explore: (1) whether digital interventions for pregnancy smoking cessation are effective, (2) the impact of intervention platform on smoking cessation, (3) the associations between specific Behaviour Change Techniques (BCTs) delivered within interventions and smoking cessation and (4) the association between the total number of BCTs delivered and smoking cessation. Systematic searches of 9 databases resulted in the inclusion of 12 published articles ( n = 2970). The primary meta-analysis produced a sample-weighted odds ratio (OR) of 1.44 (95% CI 1.04–2.00, p = .03) in favour of digital interventions compared with comparison groups. Computer-based (OR = 3.06, 95% CI 1.28–7.33) and text-message interventions (OR = 1.59, 95% CI 1.07–2.38) were the most effective digital platform. Moderator analyses revealed seven BCTs associated with smoking cessation: information about antecedents; action planning; problem solving; goal setting (behaviour); review behaviour goals; social support (unspecified); and pros and cons. A meta-regression suggested that

interventions using larger numbers of BCTs produced the greatest effects. This paper highlights the potential for digital interventions to improve rates of smoking cessation in pregnancy. (PsycINFO Database Record (c) 2020 APA, all rights reserved) (Source: journal abstract)

Database: PsycINFO

#### 36. An epidemiological, developmental and clinical overview of cannabis use during pregnancy.

Author(s): El Marroun, Hanan; Brown, Qiana L; Lund, Ingunn Olea; Coleman-Cowger, Victoria H;

Loree, Amy M; Chawla, Devika; Washio, Yukiko

Source: Preventive medicine; Nov 2018; vol. 116; p. 1-5

**Publication Date:** Nov 2018

**Publication Type(s):** Research Support, Non-u.s. Gov't Journal Article Review

PubMedID: 30171964

Available at Preventive medicine - from Unpaywall

Abstract:The objective of the current narrative literature review is to provide an epidemiological, developmental and clinical overview on cannabis use during pregnancy. Cannabis use in pregnancy poses major health concerns for pregnant mothers and their developing children. Although studies on the short- and long-term consequences of prenatal cannabis exposure are increasing, findings have been inconsistent or difficult to interpret due to methodological issues. Thus, consolidating these findings into clinical recommendations based on the mixed studies in the literature remains a challenge. Synthesizing the available observational studies is also difficult, because some of the published studies have substantial methodological weaknesses. Improving observational studies will be an important step toward understanding the extent to which prenatal exposure to cannabis influences neurodevelopment in the offspring. Therefore, further research on prenatal cannabis exposure and the long-term consequences to offspring health in representative samples are needed to guide and improve clinical care for pregnant women and their children. Future research should also investigate the role of policies on prenatal cannabis use.

Database: Medline

#### 37. Effect of Maternal Substance Abuse on the Fetus, Neonate, and Child.

Author(s): Bailey, Nicole A; Diaz-Barbosa, Magaly

Source: Pediatrics in review; Nov 2018; vol. 39 (no. 11); p. 550-559

**Publication Date: Nov 2018** 

Publication Type(s): Journal Article Review

PubMedID: 30385584

Database: Medline

#### 38. Marijuana Use in Pregnancy and While Breastfeeding.

Author(s): Metz, Torri D; Borgelt, Laura M

**Source:** Obstetrics and gynecology; Nov 2018; vol. 132 (no. 5); p. 1198-1210

**Publication Date:** Nov 2018

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Review

**PubMedID:** 30234728

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Obstetrics and gynecology - from Unpaywall

Abstract: The prevalence and perceived safety of marijuana use in pregnancy are increasing with expanding legalization. Marijuana crosses the placenta and passes into breast milk, resulting in fetal and neonatal exposure. Many women cite medical reasons for prenatal marijuana use such as nausea and vomiting of pregnancy, anxiety, and chronic pain. The scientific literature regarding marijuana in pregnancy is mixed, resulting in confusion among practitioners as to how to counsel women about risks of use. In addition, there is a paucity of literature related to marijuana use and breastfeeding. Existing pregnancy studies are predominantly retrospective cohorts with a reliance on self-report for ascertainment of exposure, which underestimates use. Many studies fail to adjust for important confounding factors such as tobacco use and sociodemographic differences. Despite the limitations of the existing evidence, there are animal and human data suggesting potential harm of cannabis use. The harms are biologically plausible given the role of the endocannabinoid system in pregnancy implantation, placentation, and fetal neurologic development. Two recent systematic reviews and meta-analyses found an association between marijuana use and adverse perinatal outcomes, especially with heavy marijuana use. In addition, three longitudinal cohort studies demonstrate a possible effect of prenatal marijuana exposure on long-term neurobehavioral outcomes. Marijuana use may be associated with growth restriction, stillbirth, spontaneous preterm birth, and neonatal intensive care unit admission. Therefore, women should be advised to refrain from using marijuana during pregnancy and lactation.

#### 39. Prescription opioid use in pregnancy.

**Author(s):** Blandthorn, Julie; Leung, Laura; Loke, Yuan; Lloyd-Jones, D Martyn; Thurman, Robin; Bowman, Ellen; Bonomo, Yvonne

Source: The Australian & New Zealand journal of obstetrics & gynaecology; Oct 2018; vol. 58 (no. 5);

p. 494-498

**Publication Date: Oct 2018** 

**Publication Type(s):** Journal Article Review

PubMedID: 29744859

Available at The Australian & New Zealand journal of obstetrics & gynaecology - from Wiley Online Library

**Abstract:**Prescription medications, including opioid analgesics, are increasingly prescribed in Australia and internationally. More women are presenting in pregnancy with prescription opioid use which can potentially cause harm to the mother and fetus. This article outlines the different types of prescription opioids, defines how prescription opioid use disorder presents clinically and suggests a rational clinical approach to assess and manage patients in the context of pregnancy and their infants.

Database: Medline

#### 40. Treatment of Perinatal Opioid Use Disorder.

**Author(s):** Boyars, Lisa; Guille, Constance

Source: Obstetrics and gynecology clinics of North America; Sep 2018; vol. 45 (no. 3); p. 511-524

Publication Date: Sep 2018

Publication Type(s): Journal Article Review

PubMedID: 30092925

**Abstract:**Opioid agonist therapy is the standard of care for pregnant women with Opioid Use Disorder, but medication-assisted withdrawal from opioid agonist therapy is increasingly prevalent. We review available literature evaluating the risks and benefits of medication-assisted withdrawal. We highlight the importance of supporting women in making an informed treatment choice that is best for them. Although it is tempting to choose medication-assisted withdrawal to decrease the risk of newborn opioid withdrawal, we caution against this practice. Facilitating treatment that assists pregnant women in recovery ultimately produces the best outcome for women and their children.

#### 41. The Effects of Alcohol and Drugs of Abuse on Maternal Nutritional Profile during Pregnancy.

Author(s): Sebastiani, Giorgia; Borrás-Novell, Cristina; Casanova, Miguel Alsina; Pascual Tutusaus,

Mireia; Ferrero Martínez, Silvia; Gómez Roig, María Dolores; García-Algar, Oscar

Source: Nutrients; Aug 2018; vol. 10 (no. 8)

**Publication Date: Aug 2018** 

Publication Type(s): Journal Article Review

PubMedID: 30072661

Available at Nutrients - from Europe PubMed Central - Open Access

Available at Nutrients - from Free Medical Journals . com

Available at Nutrients - from ProQuest (Health Research Premium) - NHS Version

Available at Nutrients - from Unpaywall

Abstract: The consumption of alcohol and drugs of abuse among pregnant women has experienced a significant increase in the last decades. Suitable maternal nutritional status is crucial to maintain the optimal environment for fetal development but if consumption of alcohol or drugs of abuse disrupt the intake of nutrients, the potential teratogenic effects of these substances increase. Despite evidence of the importance of nutrition in addicted pregnant women, there is a lack of information on the effects of alcohol and drugs of abuse on maternal nutritional status; so, the focus of this review was to provide an overview on the nutritional status of addicted mothers and fetuses. Alcohol and drugs consumption can interfere with the absorption of nutrients, impairing the quality and quantity of proper nutrient and energy intake, resulting in malnutrition especially of micronutrients (vitamins, omega<sup>-</sup>3, folic acid, zinc, choline, iron, copper, selenium). When maternal nutritional status is compromised by alcohol and drugs of abuse the supply of essential nutrients are not available for the fetus; this can result in fetal abnormalities like Intrauterine Growth Restriction (IUGR) or Fetal Alcohol Spectrum Disorder (FASD). It is critical to find a strategy to reduce fetal physical and neurological impairment as a result of prenatal alcohol and drugs of abuse exposure combined with poor maternal nutrition. Prenatal nutrition interventions and target therapy are required that may reverse the development of such abnormalities.

### 42. Screening pregnant women and their neonates for illicit drug use: Consideration of the integrated technical, medical, ethical, legal, and social issues

Author(s): Price H.R.; Collier A.C.; Wright T.E.

Source: Frontiers in Pharmacology; Aug 2018; vol. 9

Publication Date: Aug 2018
Publication Type(s): Review

Available at Frontiers in Pharmacology - from Europe PubMed Central - Open Access

Available at Frontiers in Pharmacology - from Free Medical Journals . com

Available at Frontiers in Pharmacology - from Unpaywall

Abstract: North America is currently suffering from one of the worst epidemics of illicit drug use in recent history: the opioid crisis. Pregnant women are not immune to the ravages of substance misuse which affects themselves, their pregnancies, and the wider community. The prevalence of drug misuse in pregnancy is not well quantified due to the lack of good validated tests, cooperation between clinicians and scientists developing tests, and consensus as to who should be tested and how results should be used. A wide range of tissues can be tested for drug use, including maternal blood, urine, and hair; neonatal meconium, urine, and hair; and placenta and umbilical cord tissues. Testing methods range from simple spectrophotometry and clinical chemistry to sophisticated analytical HPLC or mass spectrometry techniques. The drive for ever greater accuracy and sensitivity must be balanced with the necessities of medical practice requiring minimally invasive sampling, rapid turnaround, and techniques that can be realistically utilized in a clinical laboratory. Better screening tests have great potential to improve neonatal and maternal medical outcomes by enhancing the speed and accuracy of diagnosis. They also have great promise for public health monitoring, policy development, and resource allocation. However, women can and have been arrested for positive drug screens with even preliminary results used to remove children from custody, before rigorous confirmatory testing is completed. Balancing the scientific, medical, public health, legal, and ethical aspects of screening tests for drugs in pregnancy is critical for helping to address this crisis at all levels. Copyright © 2018 Price, Collier and Wright.

**Database: EMBASE** 

#### 43. Opioid Use Disorders and Pregnancy.

Author(s): Johnson, Amanda J; Jones, Cresta W

Source: Obstetrics and gynecology clinics of North America; Jun 2018; vol. 45 (no. 2); p. 201-216

Publication Date: Jun 2018

Publication Type(s): Journal Article Review

**PubMedID:** 29747726

**Abstract:**Opioid use disorder presents an increased risk of complications in pregnancy, particularly when untreated. To optimize outcomes, medication-assisted treatment using methadone or buprenorphine as a part of a comprehensive care model is recommended. Neonatal abstinence syndrome and poor fetal growth remain significant complications of this disorder despite maternal treatment.

#### 44. Substance use in pregnancy: The medical challenge

Author(s): Louw K.-A.

Source: Obstetric Medicine; Jun 2018; vol. 11 (no. 2); p. 54-66

Publication Date: Jun 2018
Publication Type(s): Review

Available at Obstetric medicine - from Europe PubMed Central - Open Access

Abstract: Substance use contributes significantly to the global burden of disease. Growing numbers of women use nicotine, alcohol, and illicit substances. Women are the most vulnerable to problematic substance use in their reproductive years. The first 1000 days of life, starting at conception, have been established as a critical window of time for long-term health and development. Substance use in pregnancy is associated with negative pregnancy and child health outcomes. The impact of antenatal substance use on these outcomes needs to be considered within a challenging and complex context. This review provides an overview of the current literature on the impact of substances on pregnancy and child outcomes as well as the evidence and guidelines on screening and interventions for women using substances during pregnancy. Copyright © 2018, The Author(s) 2018.

**Database:** EMBASE

#### 45. Opioid Detoxification During Pregnancy: A Systematic Review.

Author(s): Terplan, Mishka; Laird, Hollis J; Hand, Dennis J; Wright, Tricia E; Premkumar, Ashish;

Martin, Caitlin E; Meyer, Marjorie C; Jones, Hendrée E; Krans, Elizabeth E

Source: Obstetrics and gynecology; May 2018; vol. 131 (no. 5); p. 803-814

**Publication Date: May 2018** 

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Systematic Review

PubMedID: 29630016

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract: OBJECTIVETo systematically review maternal and neonatal outcomes associated with opioid detoxification during pregnancy.DATA SOURCESPubMed, PsycINFO, EMBASE, Cochrane, and ClinicalTrials.gov databases were searched from January 1, 1966, to September 1, 2016.METHODS OF STUDY SELECTIONEnglish-language studies that reported outcomes associated with opioid detoxification among pregnant women with opioid use disorder were included. Nonoriginal research articles (case reports, editorials, reviews) and studies that failed to report outcomes for detoxification participants were excluded. Bias was assessed using the Cochrane Collaboration's tool for assessing risk of bias and quality was assessed using the U.S. Preventive Service Task Force Quality of Evidence scale. TABULATION, INTEGRATION, AND RESULTSOf 1,315 unique abstracts identified, 15 met criteria for inclusion and included 1,997 participants, of whom 1,126 underwent detoxification. Study quality ranged from fair to poor as a result of the lack of a randomized control or comparison arm and high risk of bias across all studies. Only nine studies had a comparison arm. Detoxification completion (9-100%) and illicit drug relapse (0-100%) rates varied widely across studies depending on whether data from participants who did not complete detoxification or who were lost to follow-up were included in analyses. The reported rate of fetal loss was similar among women who did (14 [1.2%]) and did not undergo detoxification (17 [2.0%]).CONCLUSIONSEvidence does not support detoxification as a recommended treatment intervention as a result of low detoxification completion rates, high rates of relapse, and limited data regarding the effect of detoxification on maternal and neonatal outcomes beyond delivery.

Database: Medline

#### 46. Nicotine replacement therapy for smoking cessation during pregnancy

**Author(s):** Bar-Zeev Y.; Lim L.L.; Bonevski B.; Gruppetta M.; Gould G.S. **Source:** Medical Journal of Australia; Jan 2018; vol. 208 (no. 1); p. 46-51

Publication Date: Jan 2018

Publication Type(s): Review

Available at The Medical journal of Australia - from Wiley Online Library Science , Technology and

Medicine Collection 2019

Abstract: Nicotine replacement therapy (NRT) is recommended in current Australian clinical guidelines for pregnant women who are unable to quit smoking unassisted. \* Clinicians report low levels of prescribing NRT during pregnancy, due to safety concerns and low levels of confidence in their ability to prescribe NRT. \* Animal models show that nicotine is harmful to the fetus, especially for brain and lung development, but human studies have not found any harmful effects on fetal and pregnancy outcomes. \* Studies of efficacy and effectiveness in the real world suggest that NRT use during pregnancy increases smoking cessation rates. These rates may be hampered by the fact that studies so far have used an NRT dose that does not adequately account for the higher nicotine metabolism during pregnancy and, therefore, does not adequately treat withdrawal symptoms. \* Further research is needed to assess the safety and efficacy of higher dosages of NRT in pregnancy, specifically of combination treatment using dual forms of NRT. \* As NRT is safer than smoking, clinicians need to offer this option to all pregnantwomenwho smoke. Apractical guide for initiating and tailoring the dose of NRT in pregnancy is suggested. Copyright © 2018 AMPCO Pty Ltd. Produced with Elsevier B.V. All rights reserved.

**Database: EMBASE** 

#### 47. Opioid Use Disorder in Pregnancy

Author(s): Roper V.; Cox K.J.

Source: Journal of Midwifery and Women's Health; 2017; vol. 62 (no. 3); p. 329-340

Publication Date: 2017
Publication Type(s): Review
PubMedID: 28561914

Available at Journal of midwifery & women's health - from Wiley Online Library

Abstract:Opioid use disorder (OUD) in pregnancy has increased significantly in the past 10 years. Women with OUD may often be undertreated or untreated because of limited accessibility to treatment, particularly in rural areas. Because detoxification is not recommended during pregnancy due to the potential for adverse outcomes in the fetus and a high risk of relapse for the woman, more primary care providers need to be well versed in opioid-assisted therapy. In addition, recent changes in Food and Drug Administration regulations now allow nurse practitioners and physician assistants with specialized training to provide buprenorphine treatment for pregnant women with OUD in primary care settings. The purpose of this article is to provide information and guidance for clinicians working with and treating this population. Copyright © 2017 by the American College of Nurse-Midwives

## 48. Treating women who are pregnant and parenting for opioid use disorder and the concurrent care of their infants and children: Literature review to support national guidance

**Author(s):** Klaman, Stacey L.; Isaacs, Krystyna; Leopold, Anne; Perpich, Joseph; Hayashi, Susan; Vender, Jeff; Campopiano, Melinda; Jones, Hendrée E.

Source: Journal of Addiction Medicine; 2017; vol. 11 (no. 3); p. 178-190

**Publication Date: 2017** 

Publication Type(s): Journal Peer Reviewed Journal Journal Article

**PubMedID: 28406856** 

Available at Journal of addiction medicine - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Journal of addiction medicine - from Unpaywall

Abstract: Objectives: The prevalence of opioid use disorder (OUD) during pregnancy is increasing. Practical recommendations will help providers treat pregnant women with OUD and reduce potentially negative health consequences for mother, fetus, and child. This article summarizes the literature review conducted using the RAND/University of California, Los Angeles Appropriateness Method project completed by the US Department of Health and Human Services Substance Abuse and Mental Health Services Administration to obtain current evidence on treatment approaches for pregnant and parenting women with OUD and their infants and children. Methods: Three separate search methods were employed to identify peer-reviewed journal articles providing evidence on treatment methods for women with OUD who are pregnant or parenting, and for their children. Identified articles were reviewed for inclusion per study guidelines and relevant information was abstracted and summarized. Results: Of the 1697 articles identified, 75 were included in the literature review. The perinatal use of medication for addiction treatment (MAT, also known as medication-assisted treatment), either methadone or buprenorphine, within comprehensive treatment is the most accepted clinical practice, as withdrawal or detoxification risks relapse and treatment dropout. Medication increases may be needed with advancing pregnancy, and are not associated with more severe neonatal abstinence syndrome (NAS). Switching medication prenatally is usually not recommended as it can destabilize opioid abstinence. Postnatally, breastfeeding is seen as beneficial for the infant for women who are maintained on a stable dose of opioid agonist medication. Less is known about ideal pain management and postpartum dosing regimens. NAS appears generally less severe following prenatal exposure to buprenorphine versus methadone. Frontline NAS medication treatments include protocol-driven methadone and morphine dosing in the context of nonpharmacological supports. Conclusions: Women with OUD can be treated with methadone or buprenorphine during pregnancy. NAS is an expected and manageable condition. Although research has substantially advanced, opportunities to guide future research to improve maternal and infant outcomes are provided. (PsycINFO Database Record (c) 2019 APA, all rights reserved) (Source: journal abstract)

**Database:** PsycINFO

#### 49. Epidemiology and Effects of Substance Use in Pregnancy.

**Author(s):** Cook, Jocelynn L; Green, Courtney R; de la Ronde, Sandra; Dell, Colleen A; Graves, Lisa; Ordean, Alice; Ruiter, James; Steeves, Megan; Wong, Suzanne

**Source:** Journal of obstetrics and gynaecology Canada: JOGC = Journal d'obstetrique et gynecologie

du Canada: JOGC; Oct 2017; vol. 39 (no. 10); p. 906-915

**Publication Date: Oct 2017** 

**Publication Type(s):** Journal Article Review

**PubMedID: 28935056** 

Abstract: Substance use during pregnancy has important implications for health care providers and policymakers and can negatively affect a woman's health and the health of her children. Understanding trends, patterns of use, and outcomes are critical to developing prevention campaigns, building awareness, and providing effective care. This review critically examines the current literature on substance use in pregnancy and during the postpartum period in terms of epidemiology, risk factors, and implications. The risk factors for substance use in pregnancy, the challenges associated with reporting these cases, and the adverse effects of common substances on maternal and fetal health are discussed.

Database: Medline

#### 50. Screening and Management of Substance Use in Pregnancy: A Review.

**Author(s):** Cook, Jocelynn L; Green, Courtney R; de la Ronde, Sandra; Dell, Colleen A; Graves, Lisa; Morgan, Lisa; Ordean, Alice; Ruiter, James; Steeves, Megan; Wong, Suzanne

**Source:** Journal of obstetrics and gynaecology Canada: JOGC = Journal d'obstetrique et gynecologie

du Canada: JOGC; Oct 2017; vol. 39 (no. 10); p. 897-905

**Publication Date: Oct 2017** 

Publication Type(s): Journal Article Review

PubMedID: 28935055

Abstract:Substance use during pregnancy has important implications for health care providers, policy makers, and can negatively impact a woman's health and the health of her children. Understanding trends, patterns of use and outcomes are critical to prevention campaigns, building awareness, and providing effective care. This review will discuss the current therapeutic approaches and recommendations for screening and patient management for substance use in pregnancy and during the postpartum period, and it is geared towards any care providers who care for patients or those who may care for patients who may be at risk for substance use during pregnancy.

#### 51. Smoking cessation during pregnancy

Author(s): anonymous

Source: Obstetrics and Gynecology; Oct 2017; vol. 130 (no. 4)

**Publication Date:** Oct 2017 **Publication Type(s):** Review

**PubMedID:** 28937573

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Obstetrics and gynecology - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

**Abstract:**Smoking is the one of the most important modifiable causes of poor pregnancy outcomes in the United States, and is associated with maternal, fetal, and infant morbidity and mortality. The physical and psychologic addiction to cigarettes is powerful; however, the compassionate intervention of the obstetrician- gynecologist can be the critical element in prenatal smoking cessation. An office-based protocol that systematically identifies pregnant women who smoke and offers treatment or referral has been proved to increase quit rates. A short counseling session with pregnancy-specific educational materials and a referral to the smokers' quit line is an effective smoking cessation strategy. The 5A's is an office-based intervention developed to be used under the guidance of trained practitioners to help pregnant women quit smoking. Knowledge of the use of the 5A's, health care support systems, and pharmacotherapy add to the techniques providers can use to support perinatal smoking cessation. The use of alternative forms of nicotine, such as e-cigarettes and vaping, have increased substantially in recent years, but there are little data regarding the health effects of these agents, either in the general population or in pregnant women specifically.

# 52. Prevention and Treatment of Smoking and Tobacco Use During Pregnancy in Selected Indigenous Communities in High-Income Countries of the United States, Canada, Australia, and New Zealand: An Evidence-Based Review

**Author(s):** Gould G.S.; Lim L.L.; Mattes J.

Source: Chest; Oct 2017; vol. 152 (no. 4); p. 853-866

**Publication Date:** Oct 2017 **Publication Type(s):** Review

**PubMedID:** 28694200

Available at Chest - from Free Medical Journals . com

Available at Chest - from Unpaywall

Abstract: Tobacco smoking during pregnancy is the most important modifiable risk factor for adverse pregnancy outcomes and long-term health complications for mother and baby. Tobacco use during pregnancy has decreased in high-income countries but not in Indigenous women in Australia, New Zealand, the United States, and Canada. This evidence-based review focuses on tobacco use among Indigenous pregnant women in high-income countries that share a history of European colonization. Indigenous women are more likely to use tobacco because of socioeconomic disadvantage, social norms, and poor access to culturally appropriate tobacco cessation support. Complications arising from tobacco smoking during pregnancy, such as low birth weight, prematurity, perinatal death, and sudden infant death syndrome, are much higher in Indigenous populations. Effective approaches to cessation in pregnant nonindigenous women involves behavioral counseling, with or without nicotine replacement therapy (NRT). Higher nicotine metabolism during pregnancy and poor adherence may affect therapeutic levels of NRT. Only two randomized trials were conducted among Indigenous women: neither found a statistically significant difference in cessation rates between the treatment and comparison arms. Considerations should be given to (1) whole life course approaches to reduce tobacco use in Indigenous women, (2) prohibiting tobacco promotion and reducing access to alcohol for minors to prevent smoking initiation in Indigenous youth, and (3) training health-care professionals in culturally appropriate smoking cessation care to improve access to services. It is critical to ensure acceptability and feasibility of study designs, consult with the relevant Indigenous communities, and preempt implementation challenges. Research is needed into the effect of reducing or stopping smoking during pregnancy when using NRT on subsequent maternal and infant outcomes.Copyright © 2017 The Authors

#### 53. Substance misuse in pregnancy

Author(s): Cohen A.; Osorio R.; Page L.M.

Source: Obstetrics, Gynaecology and Reproductive Medicine; Oct 2017; vol. 27 (no. 10); p. 316-321

Publication Date: Oct 2017

Publication Type(s): Review

Abstract: The use of psychotropic substances during pregnancy has the potential to cause harm to the developing fetus. Each substance carries specific and often dose dependent effects. It is important to establish the type of substance used, the last time the substance was consumed, as well as the frequency and pattern of use. Care is best delivered through a multi-professional team with prompt interdisciplinary and inter-agency communication. Any co-existing physical or mental health needs should be addressed alongside the woman's substance misuse. Post-delivery, the risk of opiate withdrawal for mother and baby is of concern. Longer term infant outcomes following the use of psychotropic drugs include cognitive impairment and developmental delay. The combination of a hectic, unpredictable lifestyle, financial constraints and lack of support associated with substance misuse makes optimising care a real challenge. Neonatal and maternal outcomes can be optimised when women engage with maternity and drug and alcohol services. Copyright © 2017 Elsevier Ltd

Database: EMBASE

54. For Debate: Does Cannabis Use by the Pregnant Mother Affect the Fetus and Newborn?

Author(s): Merlob, Paul; Stahl, Bracha; Klinger, Gil

Source: Pediatric endocrinology reviews: PER; Sep 2017; vol. 15 (no. 1); p. 4-7

Publication Date: Sep 2017

Publication Type(s): Journal Article Review

PubMedID: 28845622

Abstract: Cannabis, commonly called marijuana, is often used during pregnancy, likely due to the perception that it is a "safe" drug. Changes in legislation in many countries have lead to the increased availability of this drug and to its increasing use during pregnancy, often with other concomitant exposures such as alcohol, tobacco, and other drugs. Herein, we review the medical literature regarding effects of marijuana on the fetus and newborn. Possible effects of in utero exposure to marijuana focus on fetal growth, increase in the rates of stillbirth and preterm delivery, congenital malformations, and neurodevelopmental effects on the child. Published studies for all these outcomes are inconsistent. Fetal weight growth may be somewhat decreased, but the magnitude of this decrease is no greater than 100 g. There is insufficient evidence to conclude on any effect on the stillbirth rate. Although there are some reports of a slight increase in the rate of prematurity, most reports do not support this effect. Marijuana does not appear to be a major teratogen; however, a small increased risk for some congenital birth defects may be associated with early pregnancy use. Neurodevelopmental effects have been associated with marijuana use, but it is difficult to control for the effect of confounders. Despite the lack of conclusive evidence, it is important to remember that marijuana has not been shown to be a harmless drug during pregnancy and may affect the long-term neurodevelopment of the newborn infant.

#### 55. Treatments for opioid use disorder among pregnant and reproductive-aged women.

**Author(s):** Hand, Dennis J; Short, Vanessa L; Abatemarco, Diane J **Source:** Fertility and sterility; Aug 2017; vol. 108 (no. 2); p. 222-227

Publication Date: Aug 2017

Publication Type(s): Journal Article Review

PubMedID: 28697916

Available at Fertility and sterility - from Unpaywall

Abstract: The increased prevalence of opioid use disorder and access to medical insurance is subsequently increasing the likelihood that medical professionals will encounter individuals with opioid use disorder. Sharp increases in opioid use disorder among women mean that obstetricians, gynecologists, and other reproductive medicine providers may be especially likely to encounter such patients. Medical professionals' understanding of treatment for opioid use disorder and their roles in their patients' treatment may increase referrals to treatment, reduce stigma, and improve the quality of medical care. Treatment for opioid use disorder falls into four overlapping domains: medication management, medical care, behavioral/mental health care, and psychosocial support. In this review, we discuss these domains with an emphasis on pregnant women and women of reproductive age. Treatment for opioid use disorder is most effective when all providers coordinate care in an informed, nonjudgmental, patient-centered approach.

Database: Medline

#### 56. The association between maternal smoking and placenta abruption: a meta-analysis

Author(s): Shobeiri F.; Masoumi S.Z.; Jenabi E.

Source: Journal of Maternal-Fetal and Neonatal Medicine; Aug 2017; vol. 30 (no. 16); p. 1963-1967

**Publication Date:** Aug 2017 **Publication Type(s):** Review

PubMedID: 27623712

Abstract:Background: Several epidemiological studies have determined that maternal smoking can increase the risk of placenta abruption. To date, only a meta-analysis has been performed for assessing the relationship between smoking and placenta abruption. This meta-analysis was conducted to estimate the association between smoking and the risk of placenta abruption. Method(s): A literature search was conducted in major databases such as PubMed, Web of Science, and Scopus from the earliest possible year to April 2016. The heterogeneity across studies was explored by Q-test and I2 statistic. The publication bias was assessed using Begg's and Egger's tests. The results were reported using odds ratio (OR) estimate with its 95% confidence intervals (CI) using a random effects model. Result(s): The literature search yielded 1167 publications until April 2016 with 4 309 610 participants. Based on OR estimates obtained from case-control and cohort studies, there was a significant association between smoking and placenta abruption (1.80; 95% CI: 1.75, 1.85). Based on the results of cohort studies, smoking and placenta abruption had a significant association (relative risk ratio: 1.65; 95% CI: 1.51, 1.80). Conclusion(s): Based on reports in epidemiological studies, we showed that smoking is a risk factor for placenta abruption.Copyright © 2016 Informa UK Limited, trading as Taylor & Francis Group.

#### 57. Nicotine Dependence Measures for Perinatal Women

Author(s): Yang I.; Hall L.A.

Source: Clinical nursing research; Aug 2017; vol. 26 (no. 4); p. 419-450

**Publication Date:** Aug 2017 **Publication Type(s):** Review

PubMedID: 26935345

Abstract: This integrative review provides an overview of nicotine dependence measures used with perinatal women and an evaluation of their psychometric properties. Fifty-five articles that met inclusion and exclusion criteria were identified from five different databases. Most of the studies used the Fagerstrom Test for Nicotine Dependence (FTND). Other approaches included diagnostic tests, the Wisconsin Inventory of Smoking Dependence Motives (WISDM), the Tobacco Dependence Screener, and single-item measures. This review indicated that the FTND may not be the best option for measuring nicotine dependence in this population. The WISDM is a newer instrument that has excellent psychometric properties and captures nonnicotinic dimensions of nicotine dependence relevant to women. Future research is needed to assess its reliability in the perinatal population. Other recommendations from this review include the use of biomarker validation, thorough psychometric reporting on nicotine dependence instruments, and the use of multiple instruments to maximize comparability between nicotine dependence instruments.

Database: EMBASE

#### 58. Committee Opinion No. 711: Opioid Use and Opioid Use Disorder in Pregnancy.

Author(s): Committee on Obstetric Practice

Source: Obstetrics and gynecology; Aug 2017; vol. 130 (no. 2); p. e81

Publication Date: Aug 2017

**Publication Type(s):** Practice Guideline Journal Article

**PubMedID: 28742676** 

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Obstetrics and gynecology - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Abstract:Opioid use in pregnancy has escalated dramatically in recent years, paralleling the epidemic observed in the general population. To combat the opioid epidemic, all health care providers need to take an active role. Pregnancy provides an important opportunity to identify and treat women with substance use disorders. Substance use disorders affect women across all racial and ethnic groups and all socioeconomic groups, and affect women in rural, urban, and suburban populations. Therefore, it is essential that screening be universal. Screening for substance use should be a part of comprehensive obstetric care and should be done at the first prenatal visit in partnership with the pregnant woman. Patients who use opioids during pregnancy represent a diverse group, and it is important to recognize and differentiate between opioid use in the context of medical care, opioid misuse, and untreated opioid use disorder. Multidisciplinary long-term follow-up should include medical, developmental, and social support. Infants born to women who used opioids during pregnancy should be monitored for neonatal abstinence syndrome by a pediatric care provider. Early universal screening, brief intervention (such as engaging a patient in a short conversation, providing feedback and advice), and referral for treatment of pregnant women with opioid use and opioid use

disorder improve maternal and infant outcomes. In general, a coordinated multidisciplinary approach without criminal sanctions has the best chance of helping infants and families.

Database: Medline

## 59. Maternal Use of Opioids During Pregnancy and Congenital Malformations: A Systematic Review.

**Author(s):** Lind, Jennifer N; Interrante, Julia D; Ailes, Elizabeth C; Gilboa, Suzanne M; Khan, Sara; Frey, Meghan T; Dawson, April L; Honein, Margaret A; Dowling, Nicole F; Razzaghi, Hilda; Creanga, Andreea A; Broussard, Cheryl S

Source: Pediatrics; Jun 2017; vol. 139 (no. 6)

Publication Date: Jun 2017

**Publication Type(s):** Journal Article Review Systematic Review

PubMedID: 28562278

Available at Pediatrics - from HighWire - Free Full Text Full text is available free online for 4 years following an initial 1-year embargo after publication.

Available at Pediatrics - from Unpaywall

Abstract:CONTEXTOpioid use and abuse have increased dramatically in recent years, particularly among women. OBJECTIVESWe conducted a systematic review to evaluate the association between prenatal opioid use and congenital malformations. DATA SOURCESWe searched Medline and Embase for studies published from 1946 to 2016 and reviewed reference lists to identify additional relevant studies.STUDY SELECTIONWe included studies that were full-text journal articles and reported the results of original epidemiologic research on prenatal opioid exposure and congenital malformations. We assessed study eligibility in multiple phases using a standardized, duplicate review process.DATA EXTRACTIONData on study characteristics, opioid exposure, timing of exposure during pregnancy, congenital malformations (collectively or as individual subtypes), length of followup, and main findings were extracted from eligible studies.RESULTSOf the 68 studies that met our inclusion criteria, 46 had an unexposed comparison group; of those, 30 performed statistical tests to measure associations between maternal opioid use during pregnancy and congenital malformations. Seventeen of these (10 of 12 case-control and 7 of 18 cohort studies) documented statistically significant positive associations. Among the case-control studies, associations with oral clefts and ventricular septal defects/atrial septal defects were the most frequently reported specific malformations. Among the cohort studies, clubfoot was the most frequently reported specific malformation.LIMITATIONSVariabilities in study design, poor study quality, and weaknesses with outcome and exposure measurement.CONCLUSIONSUncertainty remains regarding the teratogenicity of opioids; a careful assessment of risks and benefits is warranted when considering opioid treatment for women of reproductive age.

#### 60. Women and Addiction

Author(s): Ait-Daoud N.; Blevins D.; Khanna S.; Sharma S.; Holstege C.P.

Source: Psychiatric Clinics of North America; Jun 2017; vol. 40 (no. 2); p. 285-297

Publication Date: Jun 2017 Publication Type(s): Review

**PubMedID: 28477653** 

Abstract: Gender-related alcohol and drug abuse problems are related not only to biological differences, but also to social and environmental factors, which can influence the clinical presentation, consequences of use, and treatment approaches. Women are becoming the fastest-growing population of substance abusers in the United States. Given that women experience a more rapid progression of their addiction than men, it is important that we understand and address the differences to help develop prevention and treatment programs that are tailored for women, incorporating trauma assessment and management, identification and intervention for medical and psychiatric comorbidities, financial independence, pregnancy, and child care. Copyright © 2017 Elsevier Inc.

**Database: EMBASE** 

# 61. Maternal-Fetal Monitoring of Opioid-Exposed Pregnancies: Analysis of a Pilot Community-Based Protocol and Review of the Literature.

**Author(s):** Ryan, Gareth; Dooley, Joe; Windrim, Rory; Bollinger, Megan; Gerber Finn, Lianne; Kelly, Len

**Source:** Journal of obstetrics and gynaecology Canada: JOGC = Journal d'obstetrique et gynecologie

du Canada: JOGC; Jun 2017; vol. 39 (no. 6); p. 443-452

Publication Date: Jun 2017

Publication Type(s): Journal Article Review

PubMedID: 28363609

Abstract:OBJECTIVESTo describe/analyse a novel, community-based prenatal monitoring protocol for opioid-exposed pregnancies developed by our centre in 2014 to optimize prenatal care for this population. A literature review of published monitoring protocols for this population is also presented.METHODSRetrospective comparison of pre-protocol (n = 215) and post-protocol (n = 251) cohorts. Medline and Embase were searched between 2000-2016 using MeSH terms: [fetal monitoring OR prenatal care] AND [opioid-related disorders OR substance-related disorders] in Medline and [fetal monitoring OR prenatal care] AND [opiate addiction OR substance abuse] in Embase, producing 518 results. Thirteen studies included protocols for monitoring opioid-exposed pregnancies. No comprehensive monitoring protocols with high-quality supporting evidence were found.RESULTSWe evaluated 466 opioid-exposed pregnancies, 215 before and 251 after introduction of the protocol. Since implementation, there was a significant increase in the number of opioid-exposed patients who have underwent urine drug screening (72.6% to 89.2%, P < 0.0001); a significant reduction in the number of urine drug screenings positive for illicit opioids (50.2% to 29.1%, P < 0.0001); and a significant increase in the number of patients who discontinued illicit opioid use by the time of delivery (24.7% to 39.4%, P 0.05). There were no observed differences in the rate of preterm birth, birth weight <2500 g, or Apgar score 0.05).CONCLUSIONSCare of women with increased opioid use during pregnancy is an important but under-studied health issue. A novel protocol for focused antenatal care provision for women with opioid-exposed pregnancies improves standard of care and maternal/fetal outcomes.

#### 62. What can be done to lessen morbidity associated with fetal alcohol spectrum disorders?

**Author(s):** Mukherjee, Raja; Cook, Penny A; Fleming, Kate M; Norgate, Sarah H **Source:** Archives of disease in childhood; May 2017; vol. 102 (no. 5); p. 463-467

Publication Date: May 2017

Publication Type(s): Journal Article Review

PubMedID: 27802933

Available at Archives of disease in childhood - from BMJ Journals - NHS

Available at Archives of disease in childhood - from ProQuest (Health Research Premium) - NHS

Version

Available at Archives of disease in childhood - from Unpaywall

**Abstract:**Fetal alcohol syndrome and its wider spectrum of presentation fetal alcohol spectrum disorders represent a range of disorders that are sometimes difficult to recognise as they may present in a way that overlaps with other conditions. This makes identification and recognition challenging, which increases the burden associated with the disorder. When considering the reduction in morbidity, both prevention of exposure to alcohol by the fetus and early identification of cases are required. This selective review seeks to highlight some of the complexities involved as well as highlighting the challenges. By considering populations particularly at risk to exploring the reality of alcohol risk it will seek to offer some solutions to begin the process of change.

**Database:** Medline

#### 63. Methamphetamine Consumption during Pregnancy - Effects on Child Health

Author(s): Dinger J.; Hinner P.; Reichert J.; Rudiger M.

Source: Pharmacopsychiatry; May 2017; vol. 50 (no. 3); p. 107-113

Publication Date: May 2017
Publication Type(s): Review

PubMedID: 28178739

Abstract: Methamphetamine abuse during pregnancy represents an emerging health care problem. The consequences are not only of relevance to the pregnant women, but also their unborn child. It is associated with an increased risk of preeclampsia and hypertension, fetal demise, preterm delivery, and intrauterine growth restriction. The deleterious effects of prenatal methamphetamine exposure on the developing fetal brain may lead to long-term neuro-developmental and behavioral problems. Given the current evidence, abuse of methamphetamine during pregnancy must be of utmost concern to health care professionals and to policy-makers. As it has been described for neonatal abstinence syndrome, a multi-professional team is required to improve care of affected women and families. A multi-disciplinary approach is needed, including good prenatal care of pregnant women, perinatal care by specialized obstetricians and neonatologists, and psychiatric treatment by an addiction specialist. Furthermore, families should be integrated into appropriate social support networks. For the development of a structured support program for pregnant women with methamphetamine consumption, methamphetamine use disorder should be considered as a disease that requires medical treatment as well as psychological and social support. The pregnancy should be considered as a window of opportunity to provide the required help.Copyright © Georg Thieme Verlag KG Stuttgart.New York.

#### 64. Pain Management in the Opioid-Dependent Pregnant Woman

Author(s): Safley R.R.; Swietlikowski J.

Source: The Journal of perinatal & neonatal nursing; Apr 2017; vol. 31 (no. 2); p. 118-125

Publication Date: Apr 2017
Publication Type(s): Review

**PubMedID:** 28437302

Available at The Journal of perinatal & neonatal nursing - from Ovid (LWW Total Access Collection

2019 - with Neurology)

Abstract:Opioid dependence is an epidemic in the United States, and the percentage of pregnant women who are opioid dependent has increased dramatically in the last decade. Pain management, already a concern for intrapartum and postpartum care, is complicated in the context of opioid dependence. This clinical review surveys the literature on pain management in opioid-dependent pregnant women to summarize current consensus and evidence to guide clinical practice. Points of consensus for pain management in opioid-dependent pregnant women include continual opioid maintenance therapy throughout the pregnancy and the postpartum period; adequate management of acute pain; the contraindication of opioid agonist-antagonists for pain management; and the need for interdisciplinary teams using a multimodal approach to provide optimal care to opioid-dependent pregnant women.

Database: EMBASE

#### 65. Opioid dependence and pregnancy: minimizing stress on the fetal brain.

**Author(s):** McCarthy, John J; Leamon, Martin H; Finnegan, Loretta P; Fassbender, Catherine **Source:** American journal of obstetrics and gynecology; Mar 2017; vol. 216 (no. 3); p. 226-231

**Publication Date:** Mar 2017

Publication Type(s): Journal Article Review

PubMedID: 27729254

Abstract: Increase in the number of opioid-dependent pregnant women delivering babies at risk for neonatal abstinence syndrome prompted a US Government Accountability Office report documenting deficits in research and provider knowledge about care of the maternal/fetal unit and the neonate. There are 3 general sources of dependence: untreated opioid use disorder, pain management, and medication-assisted treatment with methadone or buprenorphine. A survey of methadone patients' experiences when telling a physician of their pregnancy and opioid dependence demonstrated physician confusion about proper care, frequent negative interactions with the mother, and failures to provide appropriate referral. Patients in pain management were discharged without referral when the physician was told of the pregnancy. Methadone and buprenorphine were frequently seen negatively because they "caused" neonatal abstinence syndrome. Most mothers surveyed had to find opioid treatment on their own. How dependence is managed medically is a critical determinant of the level of stress on both mother and fetus, and therefore another determinant of neonatal health. The effects of both opioid withdrawal stress and maternal emotional stress on neonatal and developmental outcomes are reviewed. Currently, there have been efforts to criminalize maternal opioid dependence and to encourage or coerce pregnant women to undergo withdrawal. This practice poses both acute risks of fetal hypoxia and long-term risks of adverse epigenetic programming related to catecholamine and corticosteroid surges during withdrawal. Contemporary studies of the effects of withdrawal stress on the developing fetal brain

are urgently needed to elucidate and quantify the risks of such practices. At birth, inconsistencies in the hospital management of neonates at risk for neonatal abstinence syndrome have been observed. Neglect of the critical role of maternal comforting in neonatal abstinence syndrome management is an iatrogenic and preventable cause of poor outcomes and long hospitalizations. Rooming-in allows for continuous care of the baby and maternal/neonatal attachment, often unwittingly disrupted by the neonatal intensive care unit environment. Recommendations are made for further research into physician/patient interactions and into optimal dosing of methadone and buprenorphine to minimize maternal/fetal withdrawal.

Database: Medline

#### 66. Patient-centered Care to Address Barriers for Pregnant Women with Opioid Dependence

Author(s): Sutter M.B.; Gopman S.; Leeman L.

Source: Obstetrics and Gynecology Clinics of North America; Mar 2017; vol. 44 (no. 1); p. 95-107

**Publication Date:** Mar 2017 **Publication Type(s):** Review

PubMedID: 28160896

Abstract: Pregnant women affected by substance use often encounter barriers to treatment, including housing insecurity, poverty, mental health issues, social stigma, and access to health care. Providers may lack the resources needed to provide quality care. Clinicians offering prenatal care to women with substance use disorder are encouraged to support family-centered, multidisciplinary care to women and their infants, focusing on harm reduction. Collaboration between providers of maternity care, substance abuse treatment, case management, family primary care, and pediatric developmental care can improve outcomes during pregnancy and through the early years of parenting. Copyright © 2016 Elsevier Inc.

#### 67. Biomarkers for the Detection of Prenatal Alcohol Exposure: A Review

Author(s): Bager H.; Husby S.; Bjerregaard L.; Christensen L.P.

Source: Alcoholism: Clinical and Experimental Research; Feb 2017; vol. 41 (no. 2); p. 251-261

Publication Date: Feb 2017
Publication Type(s): Review
PubMedID: 28098942

Available at Alcoholism, clinical and experimental research - from Wiley Online Library

Abstract: Alcohol exposure during pregnancy can cause adverse effects to the fetus, because it interferes with fetal development, leading to later physical and mental impairment. The most common clinical tool to determine fetal alcohol exposure is maternal self-reporting. However, a more objective and useful method is based on the use of biomarkers in biological specimens alone or in combination with maternal self-reporting. This review reports on clinically relevant biomarkers for detection of prenatal alcohol exposure (PAE). A systematic search was performed to ensure a proper overview in existing literature. Studies were selected to give an overview on clinically relevant neonatal and maternal biomarkers. The direct biomarkers fatty acid ethyl esters (FAEEs), ethyl glucuronide (EtG), ethyl sulfate, and phosphatidylethanol (PEth) were found to be the most appropriate biomarkers in relation to detection of PAE. To review each biomarker in a clinical context, we have compared the advantages and disadvantages of each biomarker, in relation to its window of detectability, ease of collection, and the ease and cost of analysis of each biomarker. The biomarkers PEth, FAEEs, and EtG were found to be applicable for detection of even low levels of alcohol exposure. Meconium is an accessible matrix for determination of FAEEs and EtG, and blood an accessible matrix for determination of PEth.Copyright © 2017 by the Research Society on Alcoholism

**Database:** EMBASE

# 68. A systematic review of maternal smoking during pregnancy and fetal measurements with meta-analysis

**Author(s):** Abraham M.; Alramadhan S.; Devereux G.; Turner S.; Iniguez C.; Duijts L.; Jaddoe V.W.V.; Dekker H.T.D.; Crozier S.; Godfrey K.M.; Hindmarsh P.; Vik T.; Jacobsen G.W.; Hanke W.; Sobala W.

Source: PLoS ONE; Feb 2017; vol. 12 (no. 2)

Publication Date: Feb 2017
Publication Type(s): Review
PubMedID: 28231292

Available at PloS one - from Europe PubMed Central - Open Access

Abstract:Background Maternal smoking during pregnancy is linked to reduced birth weight but the gestation at onset of this relationship is not certain. We present a systematic review of the literature describing associations between maternal smoking during pregnancy and ultrasound measurements of fetal size, together with an accompanying meta-analysis. Methods Studies were selected from electronic databases (OVID, EMBASE and Google Scholar) that examined associations between maternal smoking or smoke exposure and antenatal fetal ultrasound measurements. Outcome measures were first, second or third trimester fetal measurements. Results There were 284 abstracts identified, 16 papers were included in the review and the metaanalysis included data from eight populations. Maternal smoking was associated with reduced second trimester head size (mean reduction 0.09 standard deviation (SD) [95% CI 0.01, 0.16]) and femur length (0.06 [0.01, 0.10]) and reduced third trimester head size (0.18SD [0.13, 0.23]), femur length (0.27 SD [0.21, 0.32]) and estimated fetal weight (0.18 SD [0.11, 0.24]). Higher maternal cigarette consumption was associated

with a lower z score for head size in the second (mean difference 0.09 SD [0, 0.19]) and third (0.15 SD [0.03, 0.26]) trimesters compared to lower consumption. Fetal measurements were not reduced for those whose mothers quit before or after becoming pregnant compared to mothers who had never smoked. Conclusions Maternal smoking during pregnancy is associated with reduced fetal measurements after the first trimester, particularly reduced head size and femur length. These effects may be attenuated if mothers quit or reduce cigarette consumption during pregnancy. Copyright © 2017 Abraham et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Database:** EMBASE

#### 69. Psychosocial interventions for supporting women to stop smoking in pregnancy

**Author(s):** Chamberlain C.; Porter J.; Mckenzie J.E.; Perlen S.M.; O'Mara-Eves A.; Thomas J.; Coleman T.

Source: Cochrane Database of Systematic Reviews; Feb 2017; vol. 2017 (no. 2)

Publication Date: Feb 2017
Publication Type(s): Review

PubMedID: 28196405

Available at The Cochrane database of systematic reviews - from Cochrane Collaboration (Wiley)

Available at The Cochrane database of systematic reviews - from Unpaywall

Abstract: Background: Tobacco smoking remains one of the few preventable factors associated with complications in pregnancy, and has serious long-term implications for women and babies. Smoking in pregnancy is decreasing in high-income countries, but is strongly associated with poverty and is increasing in low- to middle-income countries. Objective(s): To assess the effects of smoking cessation interventions during pregnancy on smoking behaviour and perinatal health outcomes. Search Method(s): In this sixth update, we searched the Cochrane Pregnancy and Childbirth Group's Trials Register (13 November 2015), checked reference lists of retrieved studies and contacted trial authors. Selection Criteria: Randomised controlled trials, cluster-randomised trials, and quasirandomised controlled trials of psychosocial smoking cessation interventions during pregnancy. Data Collection and Analysis: Two review authors independently assessed trials for inclusion and trial quality, and extracted data. Direct comparisons were conducted in RevMan, with meta-regression conducted in STATA 14. Main Result(s): The overall quality of evidence was moderate to high, with reductions in confidence due to imprecision and heterogeneity for some outcomes. One hundred and two trials with 120 intervention arms (studies) were included, with 88 trials (involving over 28,000 women) providing data on smoking abstinence in late pregnancy. Interventions were categorised as counselling, health education, feedback, incentives, social support, exercise and dissemination. In separate comparisons, there is high-quality evidence that counselling increased smoking cessation in late pregnancy compared with usual care (30 studies; average risk ratio (RR) 1.44, 95% confidence interval (CI) 1.19 to 1.73) and less intensive interventions (18 studies; average RR 1.25, 95% CI 1.07 to 1.47). There was uncertainty whether counselling increased the chance of smoking cessation when provided as one component of a broader maternal health intervention or comparing one type of counselling with another. In studies comparing counselling and usual care (largest comparison), it was unclear whether interventions prevented smoking relapse among women who had stopped smoking spontaneously in early pregnancy. However, a clear effect was seen in smoking abstinence at zero to five months postpartum (11 studies; average RR 1.59, 95% CI 1.26 to 2.01) and 12 to 17 months (two studies, average RR 2.20, 95% CI 1.23 to 3.96), with a borderline effect at six to 11 months (six studies; average RR 1.33, 95% CI 1.00 to 1.77). In other comparisons, the effect was unclear for most secondary outcomes, but sample sizes were small.

Evidence suggests a borderline effect of health education compared with usual care (five studies; average RR 1.59, 95% CI 0.99 to 2.55), but the quality was downgraded to moderate as the effect was unclear when compared with less intensive interventions (four studies; average RR 1.20, 95% CI 0.85 to 1.70), alternative interventions (one study; RR 1.88, 95% CI 0.19 to 18.60), or when smoking cessation health education was provided as one component of a broader maternal health intervention. There was evidence feedback increased smoking cessation when compared with usual care and provided in conjunction with other strategies, such as counselling (average RR 4.39, 95% CI 1.89 to 10.21), but the confidence in the quality of evidence was downgraded to moderate as this was based on only two studies and the effect was uncertain when feedback was compared to less intensive interventions (three studies; average RR 1.29, 95% CI 0.75 to 2.20). High-quality evidence suggests incentive-based interventions are effective when compared with an alternative (noncontingent incentive) intervention (four studies; RR 2.36, 95% CI 1.36 to 4.09). However pooled effects were not calculable for comparisons with usual care or less intensive interventions (substantial heterogeneity, I2 = 93%). High-quality evidence suggests the effect is unclear in social support interventions provided by peers (six studies; average RR 1.42, 95% CI 0.98 to 2.07), in a single trial of support provided by partners, or when social support for smoking cessation was provided as part of a broader intervention to improve maternal health. The effect was unclear in single interventions of exercise compared to usual care (RR 1.20, 95% CI 0.72 to 2.01) and dissemination of counselling (RR 1.63, 95% CI 0.62 to 4.32). Importantly, high-quality evidence from pooled results demonstrated that women who received psychosocial interventions had a 17% reduction in infants born with low birthweight, a significantly higher mean birthweight (mean difference (MD) 55.60 g, 95% CI 29.82 to 81.38 g higher) and a 22% reduction in neonatal intensive care admissions. However the difference in preterm births and stillbirths was unclear. There did not appear to be adverse psychological effects from the interventions. The intensity of support women received in both the intervention and comparison groups has increased over time, with higherintensity interventions more likely to have higher-intensity comparisons, potentially explaining why no clear differences were seen with increasing intervention intensity in meta-regression analyses. Among meta-regression analyses: studies classified as having 'unclear' implementation and unequal baseline characteristics were less effective than other studies. There was no clear difference between trials implemented by researchers (efficacy studies), and those implemented by routine pregnancy staff (effectiveness studies), however there was uncertainty in the effectiveness of counselling in four dissemination trials where the focus on the intervention was at an organisational level. The pooled effects were similar in interventions provided for women classified as having predominantly low socio-economic status, compared to other women. The effect was significant in interventions among women from ethnic minority groups; however not among indigenous women. There were similar effect sizes in trials with biochemically validated smoking abstinence and those with self-reported abstinence. It was unclear whether incorporating use of self-help manuals or telephone support increased the effectiveness of interventions. Authors' conclusions: Psychosocial interventions to support women to stop smoking in pregnancy can increase the proportion of women who stop smoking in late pregnancy and the proportion of infants born low birthweight. Counselling, feedback and incentives appear to be effective, however the characteristics and context of the interventions should be carefully considered. The effect of health education and social support is less clear. New trials have been published during the preparation of this review and will be included in the next update. Copyright © 2017 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

# 70. Pregnant women with substance use disorders: The intersection of history, ethics, and advocacy.

Author(s): Acquavita, Shauna P; Kauffman, Sandra S; Talks, Alexandra; Sherman, Kate

**Source:** Social work in health care; 2016; vol. 55 (no. 10); p. 843-860

**Publication Date: 2016** 

Publication Type(s): Journal Article Review

PubMedID: 27676115

Abstract: Pregnant women with substance use disorders face many obstacles, including obtaining evidence-based treatment and care. This article (1) briefly reviews the history of pregnant women in clinical trials and substance use disorders treatment research; (2) identifies current ethical issues facing researchers studying pregnant women with substance use disorders; (3) presents and describes an ethical framework to utilize; and (4) identifies future directions needed to develop appropriate research and treatment policies and practices. Current research is not providing enough information to clinicians, policy-makers, and the public about maternal and child health and substance use disorders, and the data will not be sufficient to offer maximum benefit until protocols are changed.

Database: Medline

### 71. Guidelines for the Management of Pregnant Women With Substance Use Disorders.

**Author(s):** McLafferty, Laura P; Becker, Madeleine; Dresner, Nehama; Meltzer-Brody, Samantha; Gopalan, Priya; Glance, Jody; Victor, Guitelle St; Mittal, Leena; Marshalek, Patrick; Lander, Laura; Worley, Linda L M

Source: Psychosomatics; 2016; vol. 57 (no. 2); p. 115-130

**Publication Date: 2016** 

Publication Type(s): Journal Article Review

PubMedID: 26880374

Available at Psychosomatics - from Free Medical Journals . com

Abstract:BACKGROUNDWomen of reproductive potential with substance use disorders, especially those who are pregnant, present many clinical challenges to healthcare providers, including comorbid psychiatric disorders, a history of trauma and abuse, avoidance of or poor access to prenatal care, fear of legal consequences, and countertransference reactions.METHODSIn November 2013, members of the Women's Mental Health Special Interest Group of the Academy of Psychosomatic Medicine presented a Workshop reviewing substance abuse in pregnancy, highlighting the specific contributions that psychosomatic medicine specialists can make in the care of these patients. The discussion focused on epidemiology; maternal and fetal risks; and screening and treatment considerations for tobacco, alcohol, cannabis, opioids, benzodiazepines, stimulants, and several other substances.OBJECTIVEOur purpose in publishing this review is to provide clinicians and educators with the most up-to-date summary in this field to better engage these patients in care and break the intergenerational cycle of abuse and addiction.

#### 72. Substance use during pregnancy [version 1; referees: 2 approved]

Author(s): Forray A.

Source: F1000Research; 2016; vol. 5

Publication Date: 2016
Publication Type(s): Review

Available at F1000Research - from Europe PubMed Central - Open Access

Available at F1000Research - from Unpaywall

Abstract: Prenatal substance use is a critical public health concern that is linked with several harmful maternal and fetal consequences. The most frequently used substance in pregnancy is tobacco, followed by alcohol, cannabis and other illicit substances. Unfortunately, polysubstance use in pregnancy is common, as well as psychiatric comorbidity, environmental stressors, and limited and disrupted parental care, all of which can compound deleterious maternal and fetal outcomes. There are few existing treatments for prenatal substance use and these mainly comprise behavioral and psychosocial interventions. Contingency management has been shown to be the most efficacious of these. The purpose of this review is to examine the recent literature on the prenatal use of tobacco, alcohol, cannabis, stimulants, and opioids, including the effects of these on maternal and fetal health and the current therapeutic options. Copyright © 2016 Forray A.

**Database:** EMBASE

# 73. Buprenorphine compared with methadone to treat pregnant women with opioid use disorder: a systematic review and meta-analysis of safety in the mother, fetus and child.

**Author(s):** Zedler, Barbara K; Mann, Ashley L; Kim, Mimi M; Amick, Halle R; Joyce, Andrew R; Murrelle, E Lenn; Jones, Hendrée E

Source: Addiction (Abingdon, England); Dec 2016; vol. 111 (no. 12); p. 2115-2128

Publication Date: Dec 2016

Publication Type(s): Meta-analysis Comparative Study Journal Article Review Systematic Review

**PubMedID:** 27223595

Available at Addiction (Abingdon, England) - from Wiley Online Library

Available at Addiction (Abingdon, England) - from EBSCO (Psychology and Behavioral Sciences

Collection)

Available at Addiction (Abingdon, England) - from Unpaywall

**Abstract:**AIMSTo assess the safety of buprenorphine compared with methadone to treat pregnant women with opioid use disorder.METHODSWe searched PubMed, Embase and the Cochrane Library from inception to February 2015 for randomized controlled trials (RCT) and observational cohort studies (OBS) that compared buprenorphine with methadone for treating opioid-dependent pregnant women. Two reviewers assessed independently the titles and abstracts of all search results and full texts of potentially eligible studies reporting original data for maternal/fetal/infant death, preterm birth, fetal growth outcomes, fetal/congenital anomalies, fetal/child neurodevelopment and/or maternal adverse events. We ascertained each study's risk of bias using validated instruments and assessed the strength of evidence for each outcome using established methods. We computed effect sizes using random-effects models for each outcome with two or more studies.RESULTSThree RCTs (n = 223) and 15 cohort OBSs (n = 1923) met inclusion criteria. In metanalyses using unadjusted data and methadone as comparator, buprenorphine was associated with lower risk of preterm birth [RCT risk ratio (RR) = 0.40, 95% confidence interval (CI) = 0.18, 0.91; OBS RR = 0.67, 95% CI = 0.50, 0.90], greater birth weight [RCT weighted mean difference (WMD) = 277 g,

95% CI = 104, 450; OBS WMD = 265 g, 95% CI = 196, 335] and larger head circumference [RCT WMD = 0.90 cm, 95% CI = 0.14, 1.66; OBS WMD = 0.68 cm, 95% CI = 0.41, 0.94]. No treatment differences were observed for spontaneous fetal death, fetal/congenital anomalies and other fetal growth measures, although the power to detect such differences may be inadequate due to small sample sizes.CONCLUSIONSModerately strong evidence indicates lower risk of preterm birth, greater birth weight and larger head circumference with buprenorphine treatment of maternal opioid use disorder during pregnancy compared with methadone treatment, and no greater harms.

Database: Medline

### 74. Maternal Marijuana Use and Adverse Neonatal Outcomes: A Systematic Review and Metaanalysis.

**Author(s):** Conner, Shayna N; Bedell, Victoria; Lipsey, Kim; Macones, George A; Cahill, Alison G; Tuuli, Methodius G

Source: Obstetrics and gynecology; Oct 2016; vol. 128 (no. 4); p. 713-723

**Publication Date: Oct 2016** 

Publication Type(s): Meta-analysis Journal Article Review

PubMedID: 27607879

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Available at Obstetrics and gynecology - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Abstract:OBJECTIVETo estimate whether marijuana use in pregnancy increases risks for adverse neonatal outcomes and clarify if any increased risk is attributable to marijuana use itself or to confounding factors such as tobacco use.DATA SOURCESTwo authors performed a search of the data through August 2015 utilizing PubMed, Embase, Scopus, Cochrane reviews, ClinicalTrials.gov, and Cumulative Index to Nursing and Allied Health.METHODS OF STUDY SELECTIONWe looked at observational studies that compared rates of prespecified adverse neonatal outcomes in women who used marijuana during pregnancy with women who did not.TABULATION, INTEGRATION, AND RESULTSTwo authors independently extracted data from the selected studies. Primary outcomes were low birth weight (less than 2,500 g) and preterm delivery at less than 37 weeks of gestation. Secondary outcomes were birth weight, gestational age at delivery, small for gestational age, level II or greater nursery admission, stillbirth, spontaneous abortion, low Apgar score, placental abruption, and perinatal death. DerSimonian-Laird random-effects models were used. We assessed heterogeneity using the Q test and I statistic. Stratified analyses were performed for the primary outcomes and pooled adjusted estimates were calculated. We included 31 studies that assessed the effects of maternal marijuana use on adverse neonatal outcomes. Based on pooled unadjusted data, marijuana use during pregnancy was associated with an increased risk of low birth weight (15.4% compared with 10.4%, pooled relative risk [RR] 1.43, 95% confidence interval [CI] 1.27-1.62) and preterm delivery (15.3% compared with 9.6%, pooled RR 1.32, 95% CI 1.14-1.54). However, pooled data adjusted for tobacco use and other confounding factors showed no statistically significant increased risk for low birth weight (pooled RR 1.16, 95% CI 0.98-1.37) or preterm delivery (pooled RR 1.08, 95% CI 0.82-1.43).CONCLUSIONMaternal marijuana use during pregnancy is not an independent risk factor for adverse neonatal outcomes after adjusting for confounding factors. Thus, the association between maternal marijuana use and adverse outcomes appears attributable to concomitant tobacco use and other confounding factors.

## 75. Caring for Pregnant Women with Opioid Use Disorder in the USA: Expanding and Improving Treatment

**Author(s):** Saia K.A.; Mehta P.; Vilkins A.; Sia M.; Samura T.; DeAngelis J.; Schiff D.; Wachman E.M.; Price J.; Jackson C.V.; Emmer S.F.; Shaw D.; Bagley S.

Source: Current Obstetrics and Gynecology Reports; Sep 2016; vol. 5 (no. 3); p. 257-263

**Publication Date:** Sep 2016 **Publication Type(s):** Review

Available at Current Obstetrics and Gynecology Reports - from SpringerLink - Medicine

Available at Current Obstetrics and Gynecology Reports - from Unpaywall

Abstract: Purpose of the Review: Opioid use disorder in the USA is rising at an alarming rate, particularly among women of childbearing age. Pregnant women with opioid use disorder face numerous barriers to care, including limited access to treatment, stigma, and fear of legal consequences. This review of opioid use disorder in pregnancy is designed to assist health care providers caring for pregnant and postpartum women with the goal of expanding evidence-based treatment practices for this vulnerable population. Recent Findings: We review current literature on opioid use disorder among US women, existing legislation surrounding substance use in pregnancy, and available treatment options for pregnant women with opioid use disorder. Opioid agonist treatment (OAT) remains the standard of care for treating opioid use disorder in pregnancy. Medically assisted opioid withdrawal ("detoxification") is not recommended in pregnancy and is associated with high maternal relapse rates. Extended release naltrexone may confer benefit for carefully selected patients. Histories of trauma and mental health disorders are prevalent in this population; and best practice recommendations incorporate gender-specific, trauma-informed, mental health services. Breastfeeding with OAT is safe and beneficial for the mother-infant dyad. Summary: Further research investigating options of OAT and the efficacy of opioid antagonists in pregnancy is needed. The US health care system can adapt to provide quality care for these motherinfant dyads by expanding comprehensive treatment services and improving access to care.Copyright © 2016, The Author(s).

# 76. Cocaine and crack cocaine abuse by pregnant or lactating mothers and analysis of its biomarkers in meconium and breast milk by LC-MS-A review

Author(s): D'Avila F.B.; Limberger R.P.; Froehlich P.E.

Source: Clinical Biochemistry; Sep 2016; vol. 49 (no. 13); p. 1096-1103

Publication Date: Sep 2016

Publication Type(s): Review

Abstract: Abusive use of drugs is a public health problem worldwide. The use of these substances by pregnant or lactating women can have many serious side effects in newborns. Among the commonest causes of addiction in drug users is cocaine in powdered form, inhaled, intravenously injected or smoked form (crack). Fast screening and a confirmation test using high specificity and sensitivity instruments such as LC-MS or GC/MS, can provide data to qualify and quantify chemical substances present in biological samples such as breast milk or meconium. Cocaine and/or crack can be detected through biomarkers or the unchanged molecule, enabling the form of cocaine use to be distinguished through the analytes. These methods must be carefully developed and validated according to internationally recognized guidelines. Thus, the study of biological matrices in which it can be detected through the development of simple and quick analytical methods can help prevent intoxication and diagnose the symptoms of dependency such as seizures, especially in babies, providing appropriate medical care. Copyright © 2016 The Canadian Society of Clinical Chemists

Database: EMBASE

### 77. Buprenorphine Versus Methadone for Opioid Dependence in Pregnancy

Author(s): Noormohammadi A.; Forinash A.; Yancey A.; Crannage E.; Campbell K.; Shyken J.

Source: Annals of Pharmacotherapy; Aug 2016; vol. 50 (no. 8); p. 666-672

**Publication Date:** Aug 2016 **Publication Type(s):** Review

PubMedID: 27199497

Abstract: Objective: To evaluate maternal and neonatal safety outcomes for methadone and buprenorphine in the obstetric population. Data Sources: A literature search of PubMed (1966 to March 2016) and EMBASE (1973 to March 2016) was completed using the search terms buprenorphine, methadone, pregnancy, opioid, and neonatal abstinence syndrome. Priority was given to randomized controlled trials and trials directly comparing buprenorphine and methadone during pregnancy. The bibliographies were reviewed for other relevant articles. Study Selection and Data Extraction: All human studies published in English, that compared methadone and buprenorphine use in pregnancy were evaluated. Because of the limited number of obstetric studies, only 5 critical studies were found. Data Synthesis: Buprenorphine significantly improved or had similar outcomes to methadone for development of neonatal abstinence syndrome (NAS), percentage of infants requiring treatment for NAS (20%-47% vs 45.5%-57%, respectively), total amount of morphine used to treat NAS (0.472-3.4 vs 1.862-10.4 mg, respectively), duration of NAS (4.1-5.6 vs 5.3-9.9 days, respectively), peak NAS (3.9-11 vs 4.9-12.8 score, respectively), infant hospital stay (6.8-10.6 vs 8.1-17.5 days, respectively), and gestational age at delivery (38.8-39.7 vs 37.9-38.8 weeks, respectively). No difference was found with other neonatal or maternal outcomes. Conclusion(s): Both methadone and buprenorphine are effective agents, with improved safety compared with continued nonmedical opioid use during pregnancy. There is evidence to suggest that buprenorphine should be considered as an equivalent option to methadone for use in pregnancy; however, larger studies are still needed to fully evaluate buprenorphine safety and advantages over methadone in the obstetric population. Copyright © The Author(s) 2016.

**Database: EMBASE** 

### 78. Opioid Use Disorder in Pregnancy: Health Policy and Practice in the Midst of an Epidemic.

Author(s): Krans, Elizabeth E; Patrick, Stephen W

Source: Obstetrics and gynecology; Jul 2016; vol. 128 (no. 1); p. 4-10

Publication Date: Jul 2016

Publication Type(s): Journal Article Review

**PubMedID: 27275812** 

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Obstetrics and gynecology - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Available at Obstetrics and gynecology - from Unpaywall

**Abstract:**Opioid abuse among pregnant women has reached epidemic proportions and has influenced maternal and child health policy at the federal, state, and local levels. As a result, we review the current state of opioid use in pregnancy and evaluate recent legislative and health policy initiatives designed to combat opioid addiction in pregnancy. We emphasize the importance of safe and responsible opioid-prescribing practices, expanding the availability and accessibility of medication-assisted treatment and standardizing care for neonates at risk of neonatal abstinence syndrome. Efforts to penalize pregnant women and negative consequences for disclosing substance use to health care providers are harmful and may prevent women from seeking prenatal care and other beneficial health care services during pregnancy. Instead, health care providers should advocate for health policy informed by scientific research and evidence-based practice to reduce the burden of prenatal opioid abuse and optimize outcomes for mothers and their neonates.

**Database:** Medline

#### 79. Alcohol use during pregnancy

Author(s): O'Keeffe L.M.; Kearney P.M.; Kenny L.C.; Greene R.A.

Source: Obstetrics, Gynaecology and Reproductive Medicine; Jun 2016; vol. 26 (no. 6); p. 188-189

**Publication Date:** Jun 2016 **Publication Type(s):** Review

Available at Obstetrics, Gynaecology & Reproductive Medicine - from Unpaywall

**Abstract:**Alcohol use during pregnancy is prevalent in Western populations. However, evidence on the effects of alcohol use during pregnancy for neonatal and child health is conflicting and advice regarding the safety of low levels of gestational alcohol consumption varies between countries. We provide a brief overview of current evidence on the effects of gestational alcohol use, its limitations and existing guidelines on alcohol use in pregnancy. Copyright © 2016.

# 80. Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis.

Author(s): Gunn, J K L; Rosales, C B; Center, K E; Nuñez, A; Gibson, S J; Christ, C; Ehiri, J E

Source: BMJ open; Apr 2016; vol. 6 (no. 4); p. e009986

Publication Date: Apr 2016

Publication Type(s): Research Support, Non-u.s. Gov't Meta-analysis Journal Article Review

Systematic Review **PubMedID:** 27048634

Available at BMJ open - from Europe PubMed Central - Open Access

Available at BMJ open - from HighWire - Free Full Text

Available at BMJ open - from ProQuest (Health Research Premium) - NHS Version

Available at BMJ open - from Unpaywall

Abstract: OBJECTIVETo assess the effects of use of cannabis during pregnancy on maternal and fetal outcomes.DATA SOURCES7 electronic databases were searched from inception to 1 April 2014. Studies that investigated the effects of use of cannabis during pregnancy on maternal and fetal outcomes were included.STUDY SELECTIONCase-control studies, cross-sectional and cohort studies were included.DATA EXTRACTION AND SYNTHESISData synthesis was undertaken via systematic review and meta-analysis of available evidence. All review stages were conducted independently by 2 reviewers.MAIN OUTCOMES AND MEASURESMaternal, fetal and neonatal outcomes up to 6 weeks postpartum after exposure to cannabis. Meta-analyses were conducted on variables that had 3 or more studies that measured an outcome in a consistent manner. Outcomes for which meta-analyses were conducted included: anaemia, birth weight, low birth weight, neonatal length, placement in the neonatal intensive care unit, gestational age, head circumference and preterm birth.RESULTS24 studies were included in the review. Results of the meta-analysis demonstrated that women who used cannabis during pregnancy had an increase in the odds of anaemia (pooled OR (pOR)=1.36: 95% CI 1.10 to 1.69) compared with women who did not use cannabis during pregnancy. Infants exposed to cannabis in utero had a decrease in birth weight (low birth weight pOR=1.77: 95% CI 1.04 to 3.01; pooled mean difference (pMD) for birth weight=109.42 g: 38.72 to 180.12) compared with infants whose mothers did not use cannabis during pregnancy. Infants exposed to cannabis in utero were also more likely to need placement in the neonatal intensive care unit compared with infants whose mothers did not use cannabis during pregnancy (pOR=2.02: 1.27 to 3.21). CONCLUSIONS AND RELEVANCEUse of cannabis during pregnancy may increase adverse outcomes for women and their neonates. As use of cannabis gains social acceptance, pregnant women and their medical providers could benefit from health education on potential adverse effects of use of cannabis during pregnancy.

#### 81. Neonatal abstinence syndrome: Pharmacologic strategies for the mother and infant.

Author(s): Kraft, Walter K; Stover, Megan W; Davis, Jonathan M

Source: Seminars in perinatology; Apr 2016; vol. 40 (no. 3); p. 203-212

**Publication Date:** Apr 2016

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Review

PubMedID: 26791055

Available at Seminars in perinatology - from Unpaywall

**Abstract:**Opioid use in pregnancy has increased dramatically over the past decade. Since prenatal opioid use is associated with numerous obstetrical and neonatal complications, this now has become a major public health problem. In particular, in utero opioid exposure can result in neonatal abstinence syndrome (NAS) which is a serious condition characterized by central nervous system hyperirritability and autonomic nervous system dysfunction. The present review seeks to define current practices regarding the approach to the pregnant mother and neonate with prenatal opiate exposure. Although the cornerstone of prenatal management of opioid dependence is opioid maintenance therapy, the ideal agent has yet to be definitively established. Pharmacologic management of NAS is also highly variable and may include an opioid, barbiturate, and/or  $\alpha$ -agonist. Genetic factors appear to be associated with the incidence and severity of NAS. Establishing pharmacogenetic risk factors for the development of NAS has the potential for creating opportunities for "personalized genomic medicine" and novel, individualized therapeutic interventions.

Database: Medline

### 82. Management of psychotropic drugs during pregnancy.

Author(s): Chisolm, Margaret S; Payne, Jennifer L

Source: BMJ (Clinical research ed.); Jan 2016; vol. 532; p. h5918

Publication Date: Jan 2016

Publication Type(s): Journal Article Review

**PubMedID: 26791406** 

Available at BMJ (Clinical research ed.) - from BMJ Journals - NHS

Available at BMJ (Clinical research ed.) - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Abstract: Psychiatric conditions (including substance misuse disorders) are serious, potentially life threatening illnesses that can be successfully treated by psychotropic drugs, even during pregnancy. Because few rigorously designed prospective studies have examined the safety of these drugs during pregnancy, the default clinical recommendation has been to discontinue them, especially during the first trimester. However, in the past decade, as more evidence has accumulated, it seems that most psychotropic drugs are relatively safe to use in pregnancy and that not using them when indicated for serious psychiatric illness poses a greater risk to both mother and child, including tragic outcomes like suicide and infanticide. This review presents an up to date and careful examination of the most rigorous scientific studies on the effects of psychotropic drugs in pregnancy. The lack of evidence in several areas means that definite conclusions cannot be made about the risks and benefits of all psychotropic drug use in pregnancy.

#### 83. Alcohol use disorders in pregnancy.

Author(s): DeVido, Jeffrey; Bogunovic, Olivera; Weiss, Roger D

Source: Harvard review of psychiatry; 2015; vol. 23 (no. 2); p. 112-121

**Publication Date: 2015** 

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Review

PubMedID: 25747924

Available at Harvard review of psychiatry - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Harvard review of psychiatry - from Unpaywall

Abstract: Alcohol use disorders (AUDs) are less prevalent in pregnant women than in nonpregnant women, but these disorders can create a host of clinical challenges when encountered. Unfortunately, little evidence is available to guide clinical decision making in this population. Drinking alcohol during pregnancy can have negative consequences on both fetus and mother, but it remains controversial as to the volume of alcohol consumption that correlates with these consequences. Likewise, little evidence is available to support the use of particular pharmacologic interventions for AUDs during pregnancy or to guide the management of alcohol detoxification in pregnant women. The use of benzodiazepines (the mainstay of most alcohol detoxification protocols) in pregnant women is controversial. Nevertheless, despite the lack of robust data to guide management of AUDs in pregnancy, clinicians need to make management decisions when confronted with these challenging situations. In that context, this article reviews the epidemiology of AUDs in pregnancy and the pharmacologic management of both AUDs and alcohol withdrawal in pregnant women, with the goal of informing clinicians about what is known about managing these co-occurring conditions.

Database: Medline

#### 84. Marijuana use in pregnancy and lactation: a review of the evidence.

Author(s): Metz, Torri D; Stickrath, Elaine H

Source: American journal of obstetrics and gynecology; Dec 2015; vol. 213 (no. 6); p. 761-778

**Publication Date:** Dec 2015

Publication Type(s): Journal Article Review

**PubMedID:** 25986032

Abstract:With the legalization of recreational marijuana in many states, we anticipate more women will be using and self-reporting marijuana use in pregnancy. Marijuana is the most common illicit drug used in pregnancy, with a prevalence of use ranging from 3% to 30% in various populations. Marijuana freely crosses the placenta and is found in breast milk. It may have adverse effects on both perinatal outcomes and fetal neurodevelopment. Specifically, marijuana may be associated with fetal growth restriction, stillbirth, and preterm birth. However, data are far from uniform regarding adverse perinatal outcomes. Existing studies are plagued by confounding by tobacco and other drug exposures as well as sociodemographic factors. In addition, there is a lack of quantification of marijuana exposure by the trimester of use and a lack of corroboration of maternal self-report with biological sampling, which contributes to the heterogeneity of study results. There is an emerging body of evidence indicating that marijuana may cause problems with neurological development, resulting in hyperactivity, poor cognitive function, and changes in dopaminergic receptors. In addition, contemporary marijuana products have higher quantities of delta-9-tetrahydrocannabinol than in the 1980s when much of the marijuana research was completed. The effects on the pregnancy and fetus may therefore be different than those previously seen. Further

research is needed to provide evidence-based counseling of women regarding the anticipated outcomes of marijuana use in pregnancy. In the meantime, women should be advised not to use marijuana in pregnancy or while lactating.

**Database:** Medline

#### 85. Pharmacological interventions for promoting smoking cessation during pregnancy

**Author(s):** Coleman T.; Cooper S.E.; Chamberlain C.; Davey M.-A.; Leonardi-Bee J. **Source:** Cochrane Database of Systematic Reviews; Dec 2015; vol. 2015 (no. 12)

**Publication Date:** Dec 2015 **Publication Type(s):** Review

PubMedID: 26690977

Available at The Cochrane database of systematic reviews - from Cochrane Collaboration (Wiley)

Available at The Cochrane database of systematic reviews - from Unpaywall

Abstract: Background: Smoking in pregnancy is a public health problem. When used by non-pregnant smokers, pharmacotherapies (nicotine replacement therapy (NRT), bupropion and varenicline) are effective for smoking cessation, however, their efficacy and safety in pregnancy remains unknown. Electronic Nicotine Delivery Systems (ENDS), or e-cigarettes, are becoming widely used but their efficacy and safety when used for smoking cessation in pregnancy are also unknown. Objective(s): To determine the efficacy and safety of smoking cessation pharmacotherapies (including NRT, varenicline and bupropion), other medications, or ENDS when used for smoking cessation in pregnancy. Search Method(s): We searched the Pregnancy and Childbirth Group's Trials Register (11 July 2015), checked references of retrieved studies, and contacted authors. Selection Criteria: Randomised controlled trials (RCTs) conducted in pregnant women with designs that permit the independent effects of any type of pharmacotherapy or ENDS on smoking cessation to be ascertained were eligible for inclusion. The following RCT designs are included. Placebo-RCTs: any form of NRT, other pharmacotherapy, or ENDS, with or without behavioural support/cognitive behaviour therapy (CBT), or brief advice, compared with an identical placebo and behavioural support of similar intensity. RCTs providing a comparison between i) any form of NRT, other pharmacotherapy, or ENDS added to behavioural support/CBT, or brief advice and ii) behavioural support of similar (ideally identical) intensity. Parallel- or cluster-randomised trials were eligible for inclusion. Quasi-randomised, cross-over and within-participant designs were not, due to the potential biases associated with these designs. Data Collection and Analysis: Two review authors independently assessed trials for inclusion and risk of bias and also independently extracted data and cross checked individual outcomes of this process to ensure accuracy. The primary efficacy outcome was smoking cessation in later pregnancy (in all but one trial, at or around delivery); safety was assessed by 11 outcomes (principally birth outcomes) that indicated neonatal and infant wellbeing; and we also collated data on adherence with trial treatments. Main Result(s): This review includes a total of nine trials which enrolled 2210 pregnant smokers: eight trials of NRT and one trial of bupropion as adjuncts to behavioural support/CBT. The risk of bias was generally low across trials with virtually all domains of the 'Risk of bias' assessment tool being satisfied for the majority of studies. We found no trials investigating varenicline or ENDS. Compared to placebo and non-placebo controls, there was a difference in smoking rates observed in later pregnancy favouring use of NRT (risk ratio (RR) 1.41, 95% confidence interval (CI) 1.03 to 1.93, eight studies, 2199 women). However, subgroup analysis of placebo-RCTs provided a lower RR in favour of NRT (RR 1.28, 95% CI 0.99 to 1.66, five studies, 1926 women), whereas within the two non-placebo RCTs there was a strong positive effect of NRT, (RR 8.51, 95% CI 2.05 to 35.28, three studies, 273 women; P value for random-effects subgroup interaction test = 0.01). There were no differences between NRT and control groups in rates of miscarriage, stillbirth, premature birth, birthweight, low birthweight,

admissions to neonatal intensive care, caesarean section, congenital abnormalities or neonatal death. Compared to placebo group infants, at two years of age, infants born to women who had been randomised to NRT had higher rates of 'survival without developmental impairment' (one trial). Generally, adherence with trial NRT regimens was low. Non-serious side effects observed with NRT included headache, nausea and local reactions (e.g. skin irritation from patches or foul taste from gum), but these data could not be pooled. Authors' conclusions: NRT used in pregnancy for smoking cessation increases smoking cessation rates measured in late pregnancy by approximately 40%. There is evidence, suggesting that when potentially-biased, non-placebo RCTs are excluded from analyses, NRT is no more effective than placebo. There is no evidence that NRT used for smoking cessation in pregnancy has either positive or negative impacts on birth outcomes. However, evidence from the only trial to have followed up infants after birth, suggests use of NRT promotes healthy developmental outcomes in infants. Further research evidence on NRT efficacy and safety is needed, ideally from placebo-controlled RCTs which achieve higher adherence rates and which monitor infants' outcomes into childhood. Accruing data suggests that it would be ethical for future RCTs to investigate higher doses of NRT than those tested in the included studies. Copyright © 2015 The Cochrane Collaboration.

Database: EMBASE

# 86. Management of opioid-induced constipation in pregnancy: a concise review with emphasis on the PAMORAs.

Author(s): Li, Z; Pergolizzi, J V; Huttner, R P; Zampogna, G; Breve, F; Raffa, R B

Source: Journal of clinical pharmacy and therapeutics; Dec 2015; vol. 40 (no. 6); p. 615-619

**Publication Date:** Dec 2015

Publication Type(s): Journal Article Review

PubMedID: 26573866

Available at Journal of clinical pharmacy and therapeutics - from Wiley Online Library

Available at Journal of clinical pharmacy and therapeutics - from Unpaywall

Abstract: WHAT IS KNOWN AND OBJECTIVEOpioid-induced constipation (OIC) is one of the most common opioid-induced adverse effects. Pregnancy also predisposes to bowel dysfunctions due to the associated endocrine changes. Pregnant women are thus at greater risk of OIC. We review the non-pharmacologic and pharmacologic treatment options as a guide for achieving a clinically optimal strategy for the management of OIC during pregnancy. METHODSThe published literature was searched for current therapeutic options, including non-pharmacologic dietary modifications, laxatives, and the peripherally acting mu-opioid receptor antagonists (PAMORAs). Each was assessed for efficacy and safety, particularly as they relate to pregnancy.RESULTS AND DISCUSSIONNonpharmacologic approaches such as dietary change are generally safe, but generally insufficient when used alone to control OIC in pregnancy. Laxatives (bulking, osmotic, stimulant) can be effective, but have potential adverse effects that might be particularly troublesome during pregnancy (e.g. electrolyte disturbances, dehydration, abdominal pain, and pulmonary oedema or hypermagnesaemia in the extreme). PAMORAs, which attenuate OIC without affecting opioidinduced analgesia, have been associated with only minimal side effects during the clinical studies to date.WHAT IS NEW AND CONCLUSIONSConventional non-pharmacologic and pharmacologic options for the management of OIC in pregnancy are often suboptimal due to insufficient efficacy or adverse effects particularly troublesome during pregnancy. The PAMORA strategy appears to provide a safe and effective new option superior to conventional therapies for the management of OIC during pregnancy.

#### 87. Opioids in pregnancy and neonatal abstinence syndrome.

Author(s): Stover, Megan W; Davis, Jonathan M

Source: Seminars in perinatology; Nov 2015; vol. 39 (no. 7); p. 561-565

**Publication Date:** Nov 2015

Publication Type(s): Journal Article Review

**PubMedID:** 26452318

Available at Seminars in perinatology - from Unpaywall

Abstract:Opiate use in pregnancy has increased dramatically over the past decade and now represents a major public health problem. More women are using prescription opioids, illegal opioids, and opioid-substitution therapy. These drugs have been associated with numerous obstetrical complications including intrauterine growth restriction, placental abruption, preterm delivery, oligohydramnios, stillbirth, and maternal death. Neonatal complications are also significant, such as an increased risk of mortality as well as neonatal abstinence syndrome (NAS). NAS is a serious and highly variable condition characterized by central nervous system hyperirritability and autonomic nervous system dysfunction. The present review seeks to define current practices regarding the management of opiate dependence in pregnancy and care of the neonate with prenatal opiate exposure. Since genetic factors appear to be associated with the incidence and severity of NAS, opportunities for "personalized genomic medicine" and unique therapeutic interventions could be developed in the future.

Database: Medline

#### 88. Substance Use in the Perinatal Period.

Author(s): Forray, Ariadna; Foster, Dawn

Source: Current psychiatry reports; Nov 2015; vol. 17 (no. 11); p. 91

**Publication Date:** Nov 2015

Publication Type(s): Research Support, N.i.h., Extramural Journal Article Review

**PubMedID: 26386836** 

Available at Current psychiatry reports - from SpringerLink - Medicine

Available at Current psychiatry reports - from Unpaywall

**Abstract:**Perinatal substance use remains a major public health problem and is associated with a number of deleterious maternal and fetal effects. Polysubstance use in pregnancy is common and can potentiate adverse maternal and fetal outcomes. Tobacco is the most commonly used substance in pregnancy, followed by alcohol and illicit substances. The treatments for perinatal substance use are limited and consist mostly of behavioral and psychosocial interventions. Of these, contingency management has shown the most efficacy. More recently, novel interventions such as progesterone for postpartum cocaine use have shown promise. The purpose of this review is to examine the recent literature on the use of tobacco, alcohol, cannabis, stimulants, and opioids in the perinatal period, their effects on maternal and fetal health, and current treatments.

# 89. Methadone versus buprenorphine for the treatment of opioid abuse in pregnancy: Science and stigma

Author(s): Holbrook A.M.

Source: American Journal of Drug and Alcohol Abuse; Sep 2015; vol. 41 (no. 5); p. 371-373

**Publication Type(s):** Review

PubMedID: 26154531

Available at The American journal of drug and alcohol abuse - from EBSCO (Psychology and Behavioral Sciences Collection)

Abstract: The past decade has seen an increase in rates of opioid abuse during pregnancy. This clinical challenge has been met with debate regarding whether or not illicit and prescription opioiddependent individuals require different treatment approaches; whether detoxification is preferable to maintenance; and the efficacy of methadone versus buprenorphine as treatment options during pregnancy. The clinical recommendations resulting from these discussions are frequently influenced by the comparative stigma attached to heroin abuse and methadone maintenance versus prescription opioid abuse and maintenance treatment with buprenorphine. While some studies have suggested that a subset of individuals who abuse prescription opioids may have different characteristics than heroin users, there is currently no evidence to suggest that buprenorphine is better suited to treatment of prescription opioid abuse than methadone. Similarly, despite its perennial popularity, there is no evidence to recommend detoxification as an efficacious approach to treatment of opioid dependence during pregnancy. While increased access to treatment is important, particularly in rural areas, there are multiple medical and psychosocial reasons to recommend comprehensive substance abuse treatment for pregnant women suffering from substance use disorders rather than office-based provision of maintenance medication. Both methadone and buprenorphine are important treatment options for opioid abuse during pregnancy. Methadone may still remain the preferred treatment choice for some women who require higher doses for stabilization, have a higher risk of treatment discontinuation, or who have had unsuccessful treatment attempts with buprenorphine. As treatment providers, we should advocate to expand available treatment options for pregnant women in all States. Copyright © 2015 Taylor & Francis Group, LLC.

**Database: EMBASE** 

#### 90. Pharmacological Management of Opioid Use Disorder in Pregnant Women.

Author(s): Wilder, Christine M; Winhusen, Theresa

Source: CNS drugs; Aug 2015; vol. 29 (no. 8); p. 625-636

**Publication Date: Aug 2015** 

Publication Type(s): Comparative Study Journal Article Review

**PubMedID:** 26315948

Available at CNS drugs - from SpringerLink - Medicine

Available at CNS drugs - from ProQuest (Health Research Premium) - NHS Version

**Abstract:**Opioid misuse during pregnancy is associated with negative outcomes for both mother and fetus due not only to the physiological effects of the drug but also to the associated social, medical and mental health problems that accompany illicit drug use. An interdisciplinary approach to the treatment of opioid use disorder during pregnancy is most effective. Ideally, obstetric and substance use treatment are co-located and ancillary support services are readily available. Medication-assisted treatment with methadone or buprenorphine is intrinsic to evidence-based care for the

opioid-using pregnant woman. Women who are not stabilized on an opioid maintenance medication experience high rates of relapse and worse outcomes. Methadone has been the mainstay of maintenance treatment for nearly 50 years, but recent research has found that both methadone and buprenorphine maintenance treatments significantly improve maternal, fetal and neonatal outcomes. Although methadone remains the current standard of care, the field is beginning to move towards buprenorphine maintenance as a first-line treatment for pregnant women with opioid use disorder, because of its greater availability and evidence of better neonatal outcomes than methadone. However, there is some evidence that treatment dropout may be greater with buprenorphine relative to methadone.

Database: Medline

#### 91. Committee Opinion No. 637: Marijuana Use During Pregnancy and Lactation

Author(s): anonymous

Source: Obstetrics and Gynecology; Jul 2015; vol. 126 (no. 1); p. 234-238

**Publication Date:** Jul 2015 **Publication Type(s):** Review

PubMedID: 26241291

Available at Obstetrics and gynecology - from Ovid (LWW Total Access Collection 2019 - with

Neurology)

Available at Obstetrics and gynecology - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location]: Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Abstract:Cannabis sativa (marijuana) is the illicit drug most commonly used during pregnancy. The self-reported prevalence of marijuana use during pregnancy ranges from 2% to 5% in most studies. A growing number of states are legalizing marijuana for medicinal or recreational purposes, and its use by pregnant women could increase even further as a result. Because of concerns regarding impaired neurodevelopment, as well as maternal and fetal exposure to the adverse effects of smoking, women who are pregnant or contemplating pregnancy should be encouraged to discontinue marijuana use. Obstetrician-gynecologists should be discouraged from prescribing or suggesting the use of marijuana for medicinal purposes during preconception, pregnancy, and lactation. Pregnant women or women contemplating pregnancy should be encouraged to discontinue use of marijuana for medicinal purposes in favor of an alternative therapy for which there are better pregnancy-specific safety data. There are insufficient data to evaluate the effects of marijuana use on infants during lactation and breastfeeding, and in the absence of such data, marijuana use is discouraged.Copyright © 2015 by The American College of Obstetricians and Gynecologists. Published by Wolters Kluwer Health, Inc. All rights reserved.

### 92. Treating tobacco use disorder in pregnant women in medication-assisted treatment for an opioid use disorder: A systematic review

Author(s): Akerman, Sarah C.; Brunette, Mary F.; Green, Alan I.; Goodman, Daisy J.; Blunt, Heather B.; Heil, Sarah H.

Source: Journal of Substance Abuse Treatment; May 2015; vol. 52; p. 40-47

**Publication Date: May 2015** 

**Publication Type(s):** Journal Peer Reviewed Journal Journal Article

**PubMedID:** 25592332

Available at Journal of substance abuse treatment - from Unpaywall

Abstract: Smoking is associated with adverse effects on pregnancy and fetal development, yet 88-95% of pregnant women in medication-assisted treatment for an opioid use disorder smoke cigarettes. This review summarizes existing knowledge about smoking cessation treatments for pregnant women on buprenorphine or methadone, the two forms of medication-assisted treatment for opioid use disorder indicated for prenatal use. We performed a systematic review of the literature using indexed terms and key words to capture the concepts of smoking, pregnancy, and opioid substitution and found that only three studies met search criteria. Contingency management, an incentive based treatment, was the most promising intervention: 31% of participants achieved abstinence within the 12-week study period, compared to 0% in a non-contingent behavior incentive group and a group receiving usual care. Two studies of brief behavioral interventions resulted in reductions in smoking but not cessation. Given the growing number of pregnant women in medication-assisted treatment for an opioid use disorder and the negative consequences of smoking on pregnancy, further research is needed to develop and test effective cessation strategies for this group. (PsycINFO Database Record (c) 2019 APA, all rights reserved) (Source: journal abstract)

**Database:** PsycINFO

### 93. The management of alcohol withdrawal in pregnancy—Case report, literature review and preliminary recommendations

**Author(s):** Bhat, Amritha; Hadley, Allison

Source: General Hospital Psychiatry; May 2015; vol. 37 (no. 3); p. e1

**Publication Date: May 2015** 

**Publication Type(s):** Journal Peer Reviewed Journal Journal Article

Abstract: Pregnant women are advised to stop drinking alcohol, but there is very little evidencebased guidance on the management of alcohol withdrawal. We describe a case of alcohol withdrawal during pregnancy and summarize available information on treatment. (PsycINFO

Database Record (c) 2018 APA, all rights reserved) (Source: journal abstract)

**Database:** PsycINFO

94. Drug addiction in pregnancy: disease not moral failure.

Author(s): Maguire, Denise

Source: Neonatal network: NN; 2014; vol. 33 (no. 1); p. 11-18

**Publication Date: 2014** 

Publication Type(s): Journal Article Review

**PubMedID: 24413031** 

Available at Neonatal network: NN - from ProQuest (Health Research Premium) - NHS Version

Abstract: Nurses have demonstrated concern for years about their interactions with pregnant women who abuse drugs. Reports of nurses' concern with substance abuse have been reported in the literature since the 1980s. As with any chronic disease, drug addiction causes physiologic changes, and the pathology that occurs in the brain drives characteristic behaviors. Research suggests that choices that addicts make are driven by pathology rather than by failure of a moral compass. This article reviews the theoretical explanations for addictive behaviors, describes the pathophysiology of drug addiction that is responsible for the predictable symptoms and behaviors exhibited by women who abuse prescription drugs and other opioids, and identifies nursing interventions to impact positive outcomes. Nurses who have a working knowledge of this disease will provide more effective nursing care to the women they encounter and are better prepared to make a difference in the lives of both women and their children.

**Database:** Medline

#### 95. Is it safe to use smoking cessation therapeutics during pregnancy?

Author(s): De Long N.E.; Barra N.G.; Holloway A.C.; Hardy D.B.

**Source:** Expert Opinion on Drug Safety; Dec 2014; vol. 13 (no. 12); p. 1721-1731

Publication Date: Dec 2014
Publication Type(s): Review

PubMedID: 25330815

Abstract:Introduction: Worldwide, 10 to 35% of pregnant women smoke. It is clear that smoking cessation has positive impacts for both the mother and child, yet many women are still unable to quit due to the addictive properties of nicotine. There are limited data surrounding their safety and efficacy in pregnancy. Areas covered: This review highlights evidence from clinical studies and animal experiments regarding the effects of smoking cessation therapeutics on pregnancy, neonatal and long-term postnatal outcomes. Expert opinion: There are insufficient data at this time to recommend the use of varenicline and/or bupropion for smoking cessation during pregnancy. In addition, the efficacy and safety of nicotine replacement therapy use for smoking cessation in pregnant women has not been clearly demonstrated. Until further studies are completed, there will continue to be considerable uncertainty regarding the use of these drugs in pregnancy despite the well-documented benefits of smoking cessation. Copyright © 2014 Informa UK, Ltd.

#### 96. Substance misuse in pregnancy

Author(s): Stephen G.; Whitworth M.K.; Cox S.

Source: Obstetrics, Gynaecology and Reproductive Medicine; Oct 2014; vol. 24 (no. 10); p. 309-314

Publication Date: Oct 2014

Publication Type(s): Review

**Abstract:**Substance misuse in pregnancy is associated with a higher risk of maternal mortality and morbidity, as well as an increased risk of poor obstetric outcomes. It is strongly linked with social deprivation and is best managed by a supportive multi-disciplinary, multi-agency team involving obstetricians, specialist midwives, specialist addiction services and social care professionals. In this article the following issues will be discussed and highlighted through two case reports: (a) the definition of addiction; (b) screening for substance misuse; (c) effects of specific substances; (d) management of substance misuse in pregnancy; (e) importance of multi-agency holistic care.Copyright © 2014 Elsevier Ltd.

Database: EMBASE

# 97. Prenatal buprenorphine versus methadone exposure and neonatal outcomes: systematic review and meta-analysis.

Author(s): Brogly, Susan B; Saia, Kelley A; Walley, Alexander Y; Du, Haomo M; Sebastiani, Paola

Source: American journal of epidemiology; Oct 2014; vol. 180 (no. 7); p. 673-686

Publication Date: Oct 2014

Publication Type(s): Meta-analysis Comparative Study Journal Article Review Systematic Review

PubMedID: 25150272

Available at American journal of epidemiology - from Oxford Journals - Medicine Available at American journal of epidemiology - from HighWire - Free Full Text

Available at American journal of epidemiology - from Unpaywall

Abstract:Increasing rates of maternal opioid use during pregnancy and neonatal withdrawal, termed neonatal abstinence syndrome (NAS), are public health concerns. Prenatal buprenorphine maintenance treatment (BMT) versus methadone maintenance treatment (MMT) may improve neonatal outcomes, but associations vary. To summarize evidence, we used a random-effects metaanalysis model and estimated summary measures of BMT versus MMT on several outcomes. Sensitivity analyses evaluated confounding, publication bias, and heterogeneity. Subjects were 515 neonates whose mothers received BMT and 855 neonates whose mothers received MMT and who were born from 1996 to 2012 and who were included in 12 studies. The unadjusted NAS treatment risk was lower (risk ratio=0.90, 95% confidence interval (CI): 0.81, 0.98) and mean length of hospital stay shorter (-7.23 days, 95% CI: -10.64, -3.83) in BMT-exposed versus MMT-exposed neonates. In treated neonates, NAS treatment duration was shorter (-8.46 days, 95% CI: -14.48, -2.44) and morphine dose lower (-3.60 mg, 95% CI: -7.26, 0.07) in those exposed to BMT. BMT-exposed neonates had higher mean gestational age and greater weight, length, and head circumference at birth. Fewer women treated with BMT used illicit opioids near delivery (risk ratio=0.44, 95% CI: 0.28, 0.70). Simulations suggested that confounding by indication could account for some of the observed differences. Prenatal BMT versus MMT may improve neonatal outcomes, but bias may contribute to this protective association. Further evidence is needed to guide treatment choices.

#### 98. The perils of opioid prescribing during pregnancy.

Author(s): Meyer, Marjorie

Source: Obstetrics and gynecology clinics of North America; Jun 2014; vol. 41 (no. 2); p. 297-306

Publication Date: Jun 2014

Publication Type(s): Journal Article Review

PubMedID: 24845491

**Abstract:**Chronic opioid therapy during pregnancy is perilous, but not simply because of neonatal effects: it is perilous because women are at particular risk for misprescription, misuse, dependence, overdose, and death. Opioids may be teratogens and should be avoided in the periconception period. Accidental childhood poisoning and purposeful teen experimentation are increased with opioid prescriptions in the home. Risks to pregnancy span the pre- and periconception period; neonatal risk following in utero opioid exposure is well documented. When the authors' patients request opioids for chronic pain, they care for them in a comprehensive and compassionate matter, which often will require therapeutic approaches other than chronic opioid therapy.

Database: Medline

# 99. Substance abuse treatment services for pregnant women: Psychosocial and behavioral approaches

Author(s): Haug N.A.; Duffy M.; McCaul M.E.

Source: Obstetrics and Gynecology Clinics of North America; Jun 2014; vol. 41 (no. 2); p. 267-296

Publication Date: Jun 2014
Publication Type(s): Review

**PubMedID: 24845490** 

**Abstract:**Women who use tobacco, alcohol and drugs during pregnancy are at increased risk of maternal and fetal morbidity. Universal screening using empirically validated approaches can improve identification of substance-using pregnant women and facilitate comprehensive assessment of treatment needs. There is strong evidence for effectiveness of psychosocial and behavioral substance abuse treatments across a range of intensities and levels of care. In addition to addressing substance use, services for co-occurring psychiatric disorders, trauma exposure, and prenatal care are important components of coordinated systems of care. More research on and greater access to evidence-based interventions is needed for this underserved population. © 2014 Elsevier Inc.

#### 100. Prenatal and postpartum care of women with substance use disorders

Author(s): Gopman S.

PubMedID: 24845486

Source: Obstetrics and Gynecology Clinics of North America; Jun 2014; vol. 41 (no. 2); p. 213-228

Publication Date: Jun 2014
Publication Type(s): Review

**Abstract:**The incidence of substance abuse in pregnancy is substantial and affects pregnancy health and outcomes. Multiple challenges exist in the identification of women with substance abuse disorders in pregnancy and the provision of care. A multidisciplinary approach has been shown to be most successful in providing comprehensive and effective care. This article outlines key aspects of prenatal and postpartum care, with a brief overview provided of intrapartum care. Issues covered include screening, opioid replacement therapy, comorbid medical and psychiatric conditions, environmental stressors, parenting preparation, pain management in labor and postpartum, breastfeeding guidance, prevention of relapse, and assistance with postpartum transition to primary care. © 2014 Elsevier Inc.

**Database: EMBASE** 

### 101. Buprenorphine and methadone for opioid addiction during pregnancy

Author(s): Mozurkewich E.L.; Rayburn W.F.

Source: Obstetrics and Gynecology Clinics of North America; Jun 2014; vol. 41 (no. 2); p. 241-253

Publication Date: Jun 2014
Publication Type(s): Review

**PubMedID: 24845488** 

**Abstract:**Buprenorphine and methadone are opioid-receptor agonists used as opioid substitution therapy during pregnancy to limit exposure of the fetus to cycles of opioid withdrawal and reduce the risk of infectious comorbidities of illicit opioid use. As part of a comprehensive care plan, such therapy may result in improved access to prenatal care, reduced illicit drug use, reduced exposure to infections associated with intravenous drug use, and improved maternal nutrition and infant birth weight. This article describes differences in patient selection between the two drugs, their relative safety during pregnancy, and changes in daily doses as a guide for prescribing clinicians. © 2014 Elsevier Inc.

### 102. Exploring the management of cannabis use among women and during pregnancy

Author(s): Alharbi F.F.; El-Guebaly N.

Source: Addictive Disorders and their Treatment; Jun 2014; vol. 13 (no. 2); p. 93-100

Publication Date: Jun 2014
Publication Type(s): Review

Available at Addictive Disorders & Their Treatment - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:Objective: Exploring the potential management of cannabis among women and during pregnancy, an expanding public health issue. Method(s): A Medline search was conducted from 1982 to 2012 for articles highlighting drug abuse among women and during pregnancy, with particular emphasis on cannabis/marijuana use during pregnancy and delivery, its management, as well as the impact of the drug on the fetus. Result(s): Cannabis is the most commonly used illicit drug among youth and pregnant women in western societies. Historically, cannabis has been used to alleviate nausea during pregnancy. On reviewing the literature on the use of medication and on psychosocial approaches in women and during pregnancy, clinical guidelines as well as a research agenda including prevalence estimates through urine screening were seen to emerge. The implication of a positive test should not be punitive. Clinical trials on pregnant women should also be conducted. The impact of DELTA9-tetrahydrocannabinol and other cannabinoids should be further investigated. Particular support of the infant and developing child born from a cannabis-consuming mother is warranted. Conclusion(s): Compared with the preventive efforts targeting alcohol and tobacco use during pregnancy, the increasingly common use of cannabis is relatively neglected and in need of further specific investigations. Copyright © 2013 by Lippincott Williams & Wilkins.

Database: EMBASE

#### 103. Care of drug-addicted pregnant women: current concepts and future strategies - an overview.

Author(s): Goettler, Simone M; Tschudin, Sibil

Source: Women's health (London, England); Mar 2014; vol. 10 (no. 2); p. 167-177

Publication Date: Mar 2014

**Publication Type(s):** Journal Article Review

**PubMedID: 24601808** 

Available at Women's health (London, England) - from ProQuest (Health Research Premium) - NHS

Version

Available at Women's health (London, England) - from Unpaywall

**Abstract:**This review focuses on drug use during pregnancy and the perinatal period, a constellation that is seen more often. Drug use in pregnant women poses an increased risk for adverse health outcomes both for the mother and child. Care is often complicated by social and environmental factors, as well as psychiatric comorbidities. It is, therefore, very important to provide drug-using pregnant women with optimal ante-, peri- and post-natal care. Health professionals should approach them in a nonjudgmental and supportive way, and provide them with the same care and attention as nondrug-using women. Adequate care requires interdisciplinary teams. Ideally, healthcare providers should be specialized in the care of drug-using pregnant women.

104. Brief review: Obstetric care and perioperative analgesic management of the addicted patient

Author(s): Buckley D.N.; Ibrahim M.

Source: Canadian Journal of Anesthesia; Feb 2014; vol. 61 (no. 2); p. 154-163

**Publication Date:** Feb 2014 **Publication Type(s):** Review

PubMedID: 24338064

Available at Canadian journal of anaesthesia = Journal canadien d'anesthesie - from SpringerLink -

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(Health Research Premium) - NHS Version

Abstract: Purpose: Addiction to alcohol and illicit drugs occurs in approximately 10% of the Canadian population and thus likely affects numerous perioperative patients. Provision of perioperative analgesia to these patients is challenging for physiological and behavioural reasons. Seven electronic databases were searched to identify papers addressing the perioperative management of analgesia in addicted patients. Principal findings: There are few controlled trials on addiction care in obstetrical management, and controlled trials are lacking in obstetrical analgesia and addiction and in perioperative analgesia and addiction. The focus of the limited number of publications in the obstetrical population is on addiction management during pregnancy and does not address analgesic requirements. There are principle-based discussions on factors affecting analgesic management in patients receiving chronic opioid therapy and multimodal analgesic therapy. This discourse includes consideration of the physiological and affective factors that impact perioperative management. A number of empirically derived protocols available for managing alcohol withdrawal are based on response to the physical manifestations of withdrawal. Protocols for management of patients receiving opioid replacement therapy for opioid addiction are also well described. Nevertheless, evaluations of these protocols are lacking in clinical trials, and the impact of addiction on perioperative outcomes is unknown. Conclusion(s): Perioperative analgesic management of addicted patients remains poorly understood. Most clinical trials specifically exclude addicted patients. Suggestions for management are provided. © 2013 Canadian Anesthesiologists' Society.

### **Strategy** 799288

#	Database	Search term	Results
1	Medline	((drug* OR substance) ADJ2 (abuse OR misuse)).ti	14381
2	Medline	exp "SUBSTANCE-RELATED DISORDERS"/	275050
3	Medline	exp "ILLICIT DRUGS"/	12228
4	Medline	(smoking OR tobacco).ti	94950
5	Medline	(alcohol*).ti	136499
6	Medline	exp "SMOKING, NON- TOBACCO PRODUCTS"/	4622
7	Medline	exp "TOBACCO SMOKING"/	2164
8	Medline	exp "ALCOHOL DRINKING"/	67202
9	Medline	(1 OR 2 OR 3 OR 4 OR 5 OR 6 454782 OR 7 OR 8)	
10	Medline	(pregnan* OR maternal).ti	289344
11	Medline	exp PREGNANCY/	880137
12	Medline	(10 OR 11)	930118
13	Medline	(9 AND 12)	21516
14	Medline	13 [DT FROM 2014] [Document 480 type Review] [Languages English]	
15	EMBASE	((drug* OR substance) ADJ2 (abuse OR misuse)).ti	16455
16	EMBASE	exp "SUBSTANCE ABUSE"/	53118
17	EMBASE	exp "DRUG ABUSE"/	115809

18	EMBASE	(smoking OR tobacco).ti	106650
19	EMBASE	(alcohol*).ti	167515
20	EMBASE	exp "MATERNAL SMOKING"/	6469
21	EMBASE	exp "ALCOHOL ABUSE"/	38032
22	EMBASE	(15 OR 16 OR 17 OR 18 OR 19 419259 OR 20 OR 21)	
23	EMBASE	(pregnan* OR maternal).ti	321245
24	EMBASE	exp PREGNANCY/	650223
25	EMBASE	(23 OR 24)	747230
26	EMBASE	(22 AND 25)	18143
27	EMBASE	26 [DT FROM 2014] [Publication types Review] [English language]	387
28	EMBASE	exp "DRUG DEPENDENCE"/	227911
29	EMBASE	(25 AND 28)	6198
30	EMBASE	29 not 26	3201
31	EMBASE	30 [DT FROM 2014] [Publication types Review] [English language]	114
32	Medline	exp "DRUG USERS"/	2947
33	Medline	(12 AND 32)	45
34	Medline	33 [Document type Review] [Languages English]	2
35	PsycINFO	((drug* OR substance) ADJ2 (abuse OR misuse)).ti	12848
36	PsycINFO	exp "DRUG ABUSE"/ OR exp "SUBSTANCE USE	127065

### DISORDER"/

37	PsycINFO	(smoking OR tobacco).ti	25475
38	PsycINFO	(alcohol*).ti	59933
39	PsycINFO	exp "TOBACCO SMOKING"/	31687
40	PsycINFO	exp "ALCOHOL ABUSE"/ OR exp "ALCOHOL USE DISORDER"/	51647
41	PsycINFO	exp "NARCOTIC DRUGS"/	29000
42	PsycINFO	(35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41)	9 198637
43	PsycINFO	(pregnan*).ti	14997
44	PsycINFO	exp PREGNANCY/	41075
45	PsycINFO	(43 OR 44)	42597
46	PsycINFO	(42 AND 45)	3506
47	PsycINFO	(review).ti	150289
48	PsycINFO	(46 AND 47)	111
49	PsycINFO	48 [DT FROM 2014] [Languages English]	38
50	Medline	exp NARCOTICS/	144574
51	Medline	(12 AND 50)	6877
52	Medline	51 [DT FROM 2014] [Documentype Review] [Languages English]	t 117
53	EMBASE	exp "DRUG DEPENDENCE TREATMENT"/	22206
54	EMBASE	(25 AND 53)	1013

55	EMBASE	54 not 29	493
56	EMBASE	55 [DT FROM 2014] [Publication types Review] [English language]	25