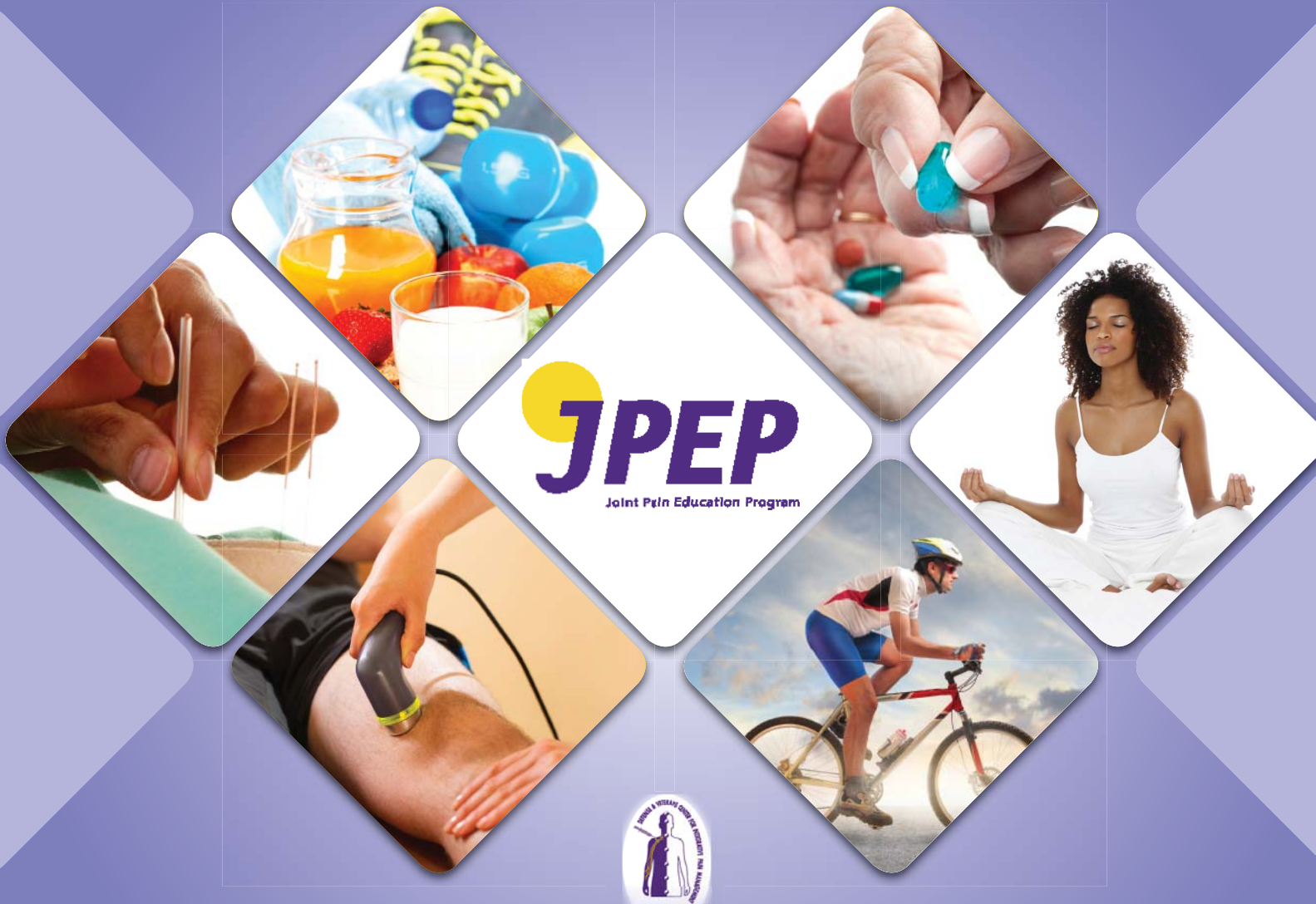


Pain Management for Primary Care



JPEP
Joint Pain Education Program



Series: Eighteen
Women and Pain
Module 18–2
Opioids and Pregnancy



Module 18–2

Opioids and Pregnancy

By the end of the module, you will be able to:

- Describe changes in the female Veteran and Active Duty population.
- Identify impacts of pain on Veteran, OEF/OIF Veteran, and non-Veteran females.
- Identify risks for pain in Active Duty and Veteran females.
- Explain causes for common pain syndromes in women such as musculoskeletal and service related pain.

We will review:

Topic One: Pain Risks in Women

Topic Two: Women Veteran Pain Studies

Topic Three: Pain Syndromes among Women

Topic Four: Approach to Women with Chronic Pain

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Topic One

Non-opioid Treatments During Pregnancy



Most pain during pregnancy is musculoskeletal

- 2/3 of women complain of low back pain
- 1/5 of women complain of pelvic pain (pubic symphysisitis)



Most helpful treatments are non-pharmacological

Treatment of lumbar and pelvic pain includes:

- Acupuncture
- Physical therapy
- Exercise (strength, stability or water)
- Osteopathic manipulation
- Support belt

Address psychosocial contributors to pain:

- Psychiatric conditions
- Social stressors
- Intimate partner violence

Non-opioid analgesics carry some risk as well

NSAIDs: Category C or D

- First trimester use: not strongly associated with anomalies
- Long-term use contraindicated: oligohydramnios, childhood asthma
- **Beware** of use after 30 weeks: premature closure of fetal ductus arteriosus
- Short course (<48 hr) NSAIDs may be used for uterine tocolysis, surgical or musculoskeletal pain

Tylenol: Category B

- Fetal toxicity in maternal overdose
- Recent studies show association with childhood asthma, ADHD and potentially autism

Notes

Pennick, et al. 2013 Cochrane Library.
2013 Cochrane Review
26 trials (n=4093 pregnant women)
Low to moderate quality evidence

Topic Two

Risks of Opioids During Pregnancy



There has been a 4-fold increase in opioid prescriptions for pregnant women within the last decade.

There are high rates of opioids prescribed for reproductive age women during preconception and pregnancy (age 15-44)

- Reproductive age women 39% of women with Medicaid versus 28% with private insurance filled an opioid prescription
- 21% of pregnant women with Medicaid versus 14% with private insurance filled an opioid prescription

Notes

The phenomenon of prescribing more opioids to poorer women is called adverse selection.

Ailes et al. MMWR 2015.

Bateman et al. Anesthesiology 2014

Patrick et al. JAMA 2012.

Physiological changes during pregnancy necessitate the increase of opioids

Physiologic changes during pregnancy:

- Increased volume of distribution
- Change in protein binding
- Increased hepatic metabolism
- Increased renal clearance

For chronic opioid users (including long acting and methadone), may require an **INCREASE** in dose and/or frequency (daily → BID)

Anesthesia may be more complicated in labor or postpartum (especially after cesarean section)

Notes

The increase of dose is a normal physiological consequence of pregnancy.

Opioids are associated with increased maternal risk

Opioids may cause:

- Preterm delivery, poor fetal growth, stillbirth
- Higher rates of depression, anxiety, and chronic medical conditions
- Increased health care costs

Opioids are given more to patients with:

- Comorbid medical complications
- Obesity/Nutritional deficiencies
- Socioeconomic stressors
- Alcohol, tobacco, and/or illegal drug consumption

Notes

Recall the phenomenon of adverse selection.

Yazdy, et al. Obstet Gynecol 2013

Broussard, et al. Am J Obstet Gynecol 2011

ACOG Committee Opinion #524, May 2012

Opioids are associated with increased fetal risk

Opioids cross the placenta and increase the risk of neural tube, abdominal wall, and cardiac defects

During labor:

- Decreased fetal heart rate variability, lower baseline, fewer accelerations, less motor activity, and breathing
- High incidence of nonreactive tracing

At birth:

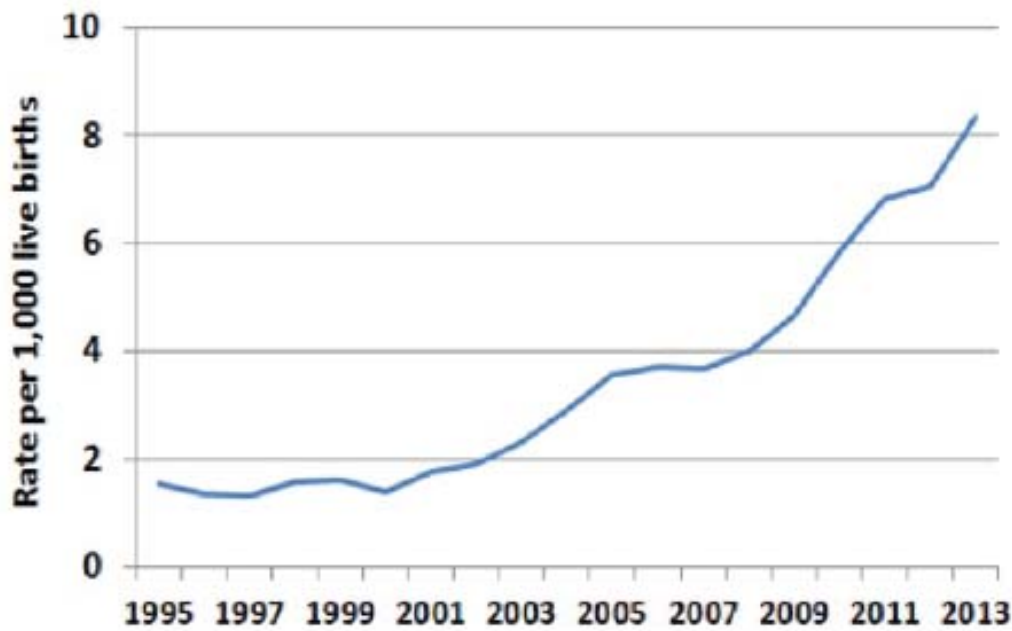
- Feeding difficulty in opioid exposed infants
- Altered sucking patterns
- May affect development of brainstem, respiratory, and swallow centers

Notes

Yazdy, et al. Obstet Gynecol 2013
Broussard, et al. Am J Obstet Gynecol 2011
ACOG Committee Opinion #524, May 2012

Neonatal Abstinence Syndrome (NAS) has become epidemic

Infant Hospitalizations for Neonatal Abstinence Syndrome in Washington State 1990-2013



Source: Inpatient Hospital Discharge & Birth Certificate Data,
NAS= ICD diagnosis code of 779.5

Neonatal Abstinence Syndrome (NAS) usually occurs within the first 72 hours

- Symptoms include: irritability, tremulousness, sweating, nasal stuffiness, poor suckling, diarrhea, vomiting, and seizure
- Postnatal scores show increased psychomotor irritability and vasomotor as well as gastrointestinal disturbances
- Short acting opioids cause earlier onset of NAS
- Can occur from the first 24 hours to day 14 of life and does not correlate with maternal opioid dose
- Buprenorphine is associated with a lower incidence and shorter duration of NAS

NAS babies can be breastfed

- 30-80% of infants exposed to opioids in-utero require treatment for NAS
- American Academy of Pediatrics supports breastfeeding in patients on methadone with no dose limitation
- Infants receive 2-3% of weight adjusted maternal dose via breast milk
- Breastfeeding may reduce the severity of NAS and shorten length of hospital stay
- Short acting opioids commonly prescribed after cesarean section are without concern for lactation

Notes

A short trial of opioid after a cesarean section does not contraindicate breastfeeding

Topic Three

Taper and Detoxification During Pregnancy



Caution!

- Ideally avoid starting opioids to minimize fetal risks and neonatal complications.
- If you need to start document carefully and alert the ObGyn, Pediatrician, and Anesthesiologist before labor.

Detoxification during pregnancy is a good idea

- Minimize maternal/fetal opioid exposure
- Lower risk of overdose and diversion
- Decrease risk of teratogenicity / in-utero effect
- Decrease risk of neonatal abstinence syndrome

Detoxification needs to be done carefully

- Can be associated with preterm labor, fetal distress, meconium, stillbirth, elevated amniotic fluid epinephrine, and norepinephrine
- Reports of miscarriage during first trimester
- Concern for recidivism (illegal opioids)
- Use of naloxone, an opioid antagonist, contraindicated in pregnancy unless maternal overdose (includes buprenorphine-naloxone)

Taper recommendations are:

- Taper by <20% of stable dose every 3 days has been proven to be the safest and best approach
- This taper is more rapid than the taper done in non-pregnant opioid patients

Notes

Dashe 1998: 59% successful detox, no increase in complications
Luty 2003: 21 day program, no second trimester loss or increase in pre-term birth
Stewart, 2013: 56% successful detox, no increase in complications

Knowledge Check

Which statement is FALSE?

- a. Most pain during pregnancy is back pain and is amenable to non pharmacological treatments
- b. The use of NSAIDS after 30 weeks risks premature closure of fetal ductus arteriosus
- c. Maternal use of opioids can cause preterm labor and neonatal abstinence syndrome
- d. Pregnancy ALWAYS makes pain worse

Knowledge Check – Answer

- a. Most pain during pregnancy is back pain and is amenable to non pharmacological treatments
- b. The use of NSAIDS after 30 weeks risks premature closure of fetal ductus arteriosus
- c. Maternal use of opioids can cause preterm labor and neonatal abstinence syndrome
- d. **Pregnancy ALWAYS makes pain worse**



Summary



Recall that all pain is real and that chronic pain has an enormous impact on individuals, families, and society.

Look for the sensory, emotion and cognitive components of the painful experience and encourage meaningful valued activities for the patient.

Remember that pain is influenced and determined by expectations, context and mood and requires a holistic and team based approach.



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