Provider Education: Opioid Prescription in Pregnancy

Robin Humrich, MD

NPQIC

● NEBRASKA, WHERE A GREAT LIFE STARTS WITH HEALTHY MOMS AND HEALTHY BABIES. ●

1

Every Day, more than 220 Americans die from opioid-related drug overdoses

NPQIC

2

Every 19 Minutes, a baby is born with neonatal opioid withdrawal syndrome

3

Categories of opioid use

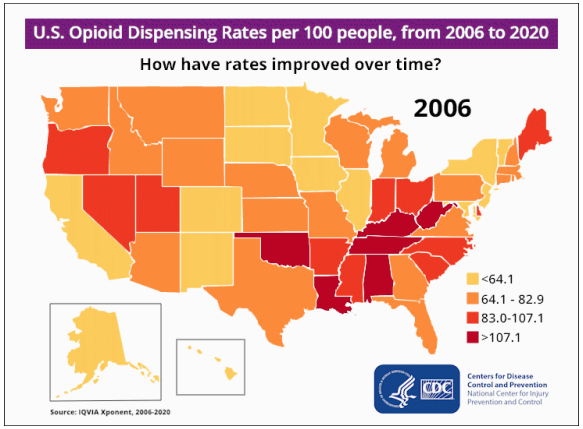
- Short term prescription opioid use for acute pain
- Ongoing daily prescription opioid use for chronic pain
- Opioid Use Disorder (OUD)- life changes because of prescription or illicit opioids, accompanied by cravings, withdrawal, and continued use despite negative consequences
- Patients on Medication for Opioid Use Disorder (MOUD)

4

How big is the problem?

- Up to 25 percent of people taking an opioid for chronic pain develop an opioid use disorder
- The number of opioid-involved overdose deaths almost tripled between 2015 and 2022
- 7% of women reported use of prescription opioid pain relievers during pregnancy. Of those, 1 in 5 reported misuse
- 75% of people with OUD reported beginning with prescription opioids
- The number of women with opioid-related diagnoses at delivery increased by 131% from 2010 to 2017

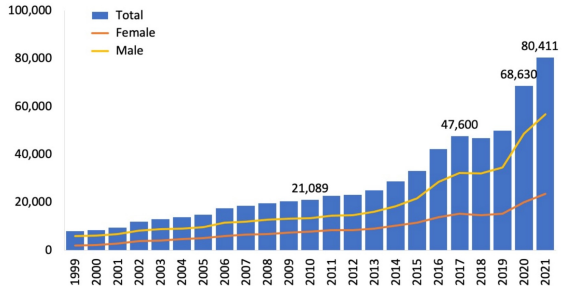
5



https://www.cdc.gov/drugoverdose/rxrate-maps/index.html

6

Figure 3. National Overdose Deaths Involving Any Opioid*, Number Among All Ages, by Gender, 1999-2021



*Among deaths with drug overdose as the underlying cause, the "any opioid" subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

NPQIC

7

Opioid Use Disorder is a life-threatening chronic medical condition with life-saving treatment available.

NPQIC

8

Opioid Use Disorder (OUD)

- Pattern of opioid use leading to clinically significant impairment or distress
  - Opioids taken in larger amounts or for longer periods of time than intended
  - Persistent desire or unsuccessful efforts to cut down or control opioid use
  - A great deal of time spent in activities necessary to obtain or use the opioid, or recover from its effects
  - Craving, or a strong desire to use opioids
  - Recurrent opioid use resulting in failure to fulfill major role obligations at work, school, or home
  - Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids

9

Symptoms of Opioid Withdrawal

- Sweating
- Diarrhea, nausea, vomiting
- Runny nose, watery eyes, sneezing, yawning
- Muscle and joint pain
- Anxiety
- Insomnia

10

Symptoms of Opioid Overdose

- "Opioid overdose triad"
  - Constricted pupils
  - Decreased respiratory rate and tidal volume
  - CNS depression

11

Effects of Opioid Use during Pregnancy

- Pregnancy associated death involving drug overdose rose from 4% to 10% of all pregnancy-associated deaths between 2007 and 2016
- Opioids cross the placenta and blood-brain barriers
- Chronic opioid use during pregnancy can cause:
  - Preterm and stillborn birth
  - Low birthweight
  - Birth defects, including congenital heat defects
  - Developmental delays
  - Neonatal Opioid Withdrawal Syndrome
- Leads to disruption of family units and affects ability to parent

12

Neonatal Opioid Withdrawal Syndrome is a complex but treatable condition that can affect parent-child bonding and have long term consequences.

13

Neonatal opioid withdrawal syndrome (NOWS)

- Also referred to as Neonatal Abstinence Syndrome (NAS)
- Onset and presentation are highly variable
- Result of chronic opioid exposure, not opioids given at time of delivery
- High pitched, continuous crying
- Tremors, seizures
- Increased muscle tone, autonomic dysfunction
- Fevers
- GI disfunction, feeding difficulties
- Maternal use of additional substances, such as nicotine, barbiturates, cocaine, or hypnotic sedatives can increase likelihood and severity of symptoms
- Impacts parent-child bonding, affects ability to parent
- Can lead to infant removal from parental custody

14

Neonatal Opioid Withdrawal Syndrome Outcomes

- Prolonged hospital stays (avg. of 9.2 days longer)
- Avg hospital stay of infant with NOWS 16-19 days
- Causes parental stress and interferes with infant-maternal bonding
- Increase in risk for child abuse and neglect
- Requires nonpharmacologic and pharmacologic treatment
- Can lead to complications, such as severe weight loss
- Evidence of academic difficulties, increased risk of substance use disorder for infant
- Opioid exposed infants diagnosed with NOWS did not have a significant increase in mortality risk
- However, opioid exposed infants not diagnosed with NOWS had a 72% increase in infant mortality risk, indicating that intervention may be protective

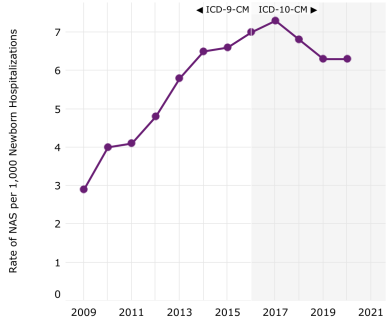
15

National NOWS Statistics

- The incidence of NOWS increased from 5.8 to 7.0 per 1,000 births between 2012 and 2018
- Incidence has decreased slightly from 2017-2020 but remains high at 6.3 per 1,000 births

16

U.S. National: Rate of NAS per 1,000 Newborn Hospitalizations by All NAS, 2009 to 2020



Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), National (Nationwide) Inpatient Sample (NIS) 2009 to 2020 (all available data as of 10/18/2022).
Abbreviation: NAS, neonatal abstinence syndrome.

*2015 values are based on the first three quarters of data using ICD-9-CM coding.

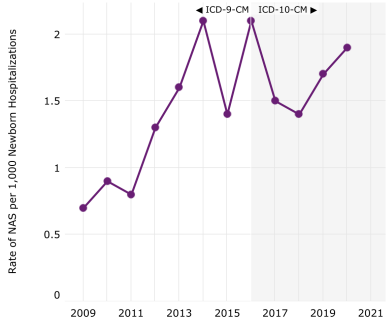
17

Nebraska NOWS Statistics

- **To date, there is no standard coding practice for NAS/NOWS**
- NOWS is likely underreported in Nebraska
- Most recent NE data: 1.9 cases per 1,000 hospital births (2021)

18

Nebraska: Rate of NAS per 1,000 Newborn Hospitalizations by All NAS, 2009 to 2020

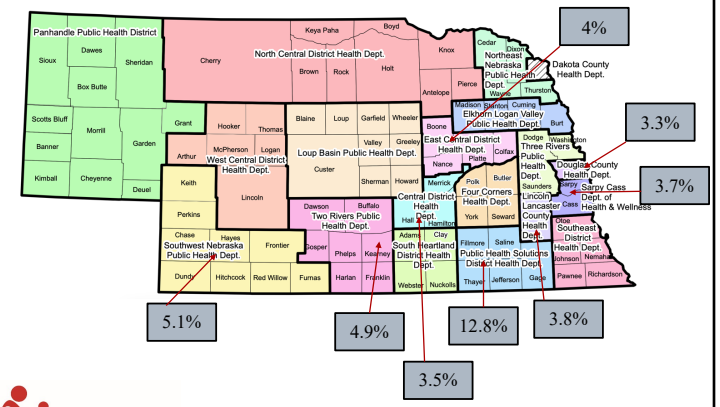


Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID) 2009 to 2020 (all available data as of 10/18/2022). Abbreviation: NAS, neonatal abstinence syndrome.

*2015 values are based on the first three quarters of data using ICD-9-CM coding.

19

Nebraska Local Health Departments



20

Pregnancy is a Unique Opportunity to Address OUD

- Opportunity to help families access services
- Increased motivation due to new maternal role
- Intervention during pregnancy can have a long-term positive impact on parent and child

21

Validated Screening Tools

- According to newest ACOG guidelines, validated screening should be performed with every patient at their first prenatal visit and upon arrival to the labor and delivery floor
- Helps to avoid women going undiagnosed with SUD and decreases provider bias
- Not specific to opioid use- can be used to screen for many substance use disorders

22

SURP-P (Substance Use Risk Profile-Pregnancy) Scale

- Free
- Screening questions to ask:
- Have you ever smoked marijuana?
- In the month before you knew you were pregnant, how much beer/how much wine/how much liquor did you drink?
- Have you ever felt the need to cut down on your drug/alcohol use?

23

Case: Krystal

- 31 yo G2P1001 in graduate school with a toddler at home
- Found out she was pregnant a month ago, but didn't seek prenatal care because of lack of insurance
- Has struggled with chronic back pain since a car accident two years ago
- Has used Norco or Percocet daily since the accident; gets medication from family or friends
- Complains of symptoms of withdrawal
- Rates her readiness to change at an 8

24

Questions

- How do you raise the subject of opioid use with Krystal?
- What additional history do you want to obtain?
- How do you provide feedback to her responses?
- What guidance would you give Krystal regarding treatment?

25

SBIRT

- Gives providers a framework for their next steps and how they can respond to a positive screen for substance use
- Gives patients a chance to tell their story
- Evidence-based: used to identify, reduce, and prevent problematic use of substances
- Three components:
  - Screening
  - Brief Intervention- engage the patient in a short conversation, providing feedback and advice
  - Referral to Treatment

26

Brief Interview & Referral for Opioid Use Disorder Script

1	**Raise Subject**	• Thank you for answering my questions. From what I understand from your screening, you are using XX - is it OK if we talk more about XX and pregnancy? • Help me understand, through your eyes, what connection (if any) do you see between your use of XX and this pregnancy? • People use drugs for many reasons: what do you like most/least about using X?
2	**Provide Feedback** (including patient education handouts)	• Sometimes patient's who give similar answers are continuing to use drugs and alcohol during their pregnancies. • I have some information on risks substance use in pregnancy. Would you mind if I shared them with you? **Share education handouts.** • Because of those risks, I recommend avoiding drugs and alcohol use during pregnancy. For women using opioids regularly, medication assisted therapy, such as Methadone or Buprenorphine, is recommended during pregnancy and after to improve outcomes for both mom and baby.

27

3	**Investigate Readiness** (Use readiness ruler)	• What are your thoughts about the information I just shared? • Do you have any concerns? • On a scale of 1-10, with 10 very ready and 1 not ready, how ready are you to make any kind of changes in your use of XX? **You marked ___. That's great.** • Why did you choose ___ and not a lower number like a 1 or 2?
4	**Create Action Plan** (Provide a warm handoff)	• What are some steps you could take to reduce the things you don't like about using that you shared with me earlier like___ ? **Restate answers the patient shared earlier.** • What steps can you take today to reach your goal of having a healthy pregnancy and healthy baby? • Those are great ideas! Is it OK for me to write down the steps/plan you just shared with me? What exactly should I write? • I have additional resources and people that patients often find helpful, would you like to meet with them**? Discuss options, schedule consults, identify navigator and make referrals to MAT/ BH counseling/recovery services. Introduce SW.** • Thank you for talking with me. Can we schedule a date to check in again to F/U?

Adapted from: Wright, SBIRT in pregnancy, AM J Obstet Gynecol., 2016 and Northern New England Perinatal Quality Improvement Network

Reproduced with permission from the Illinois Perinatal Quality Collaborative

28

Readiness Ruler

- On a scale of 1-10, how ready are you to make a change?
- Why not a lower number?
- What do you think it would take to move it to a higher number?

1	2	3	4	5	6	7	8	9	10
Not at all ready				Somewhat ready					Extremely Ready

29

MOUD during Pregnancy

- ACOG and SAHMSA recommend methadone or buprenorphine as first-line therapy options for pregnant women with OUD
- Safety, efficacy, dosing
- Reduces rates of relapse and overdose
- Improves adherence to prenatal care and treatment
- Dose decrease does NOT decrease the risk of NOWS and increases relapse rate

30

Methadone

- Synthetic long-acting opioid; prevents withdrawal symptoms for 24 hours or longer
- Dispensed daily in a registered opioid treatment program- illegal to dispense outside of program
- Dose may need to be adjusted throughout the pregnancy because of metabolic changes
- Increase in methadone dose is not associated with increase in NOWS
- Dose related risk for QTc-prolongation
- Starting dose 20-30mg, increase dose by 5-10mg as needed for symptoms
- Avg dose 120 mg, but optimal dose in pregnancy is controversial

31

Buprenorphine

- Partial mu-opioid receptor agonist; suppresses withdrawal for 24 to 48 hours
- Typical dosing every 24 hours – in pregnancy or pain, need 2-3 times per day
- Less potential for overdose than with methadone
- Initial dosing: 2 to 4mg sublingually, increase dose by 2-8 mg as needed
- Average dose 16mg by the end of pregnancy
- Can be started and correct dosage achieved before the patient leaves the delivery hospital

32

Buprenorphine

- Can be dispensed by any provider who has a DEA Registration
- Waiver no longer required; but everyone with a DEA will need training; requirements will be in effect June 2023
- https://www.samhsa.gov/medication-assisted-treatment/become-buprenorphine-waivered-practitioner
- Training and mentoring available at https://pcssnow.org
- The NMA also has mentorship available
- Providers at UNMC are available via telehealth to see mothers and provide collaborative care if needed

33

"Health care providers should understand that use of opioids during pregnancy may sometimes be appropriate. Sometimes the benefits of opioid pain medication for treating chronic or acute pain outweigh the risks."
-ACOG Committee on Obstetric Practice, 2017

34

When Considering Opioid Therapy

- Get a good health and family history, including addiction history
- Assess baseline for pain and function
- Set realistic goals for pain and function
- Look for non-narcotic alternatives for chronic pain
- Check that non-opioid therapies were tried and optimized
- Check PDMP (state database)
- Discuss benefits and risks (eg addiction, overdose) with patient
- Set criteria for stopping or continuing opioids
- Schedule initial reassessment within 1-4 weeks

35

Opioid Risk Tool

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

36

Nonopioid Alternatives

Outside of cancer, palliative, or end of life care, the CDC recommends non-opioid and nonpharmacologic treatments as the preferred therapies for chronic pain:

- Acetaminophen
- Ibuprofen (before 20 weeks of pregnancy)
  - FDA: Avoid NSAIDs after 20 weeks of pregnancy, due to small increased risk of oligohydramnios
  - If needed between 20-30 weeks, use lowest dose for least amount of time possible
- Physical Therapy
- Behavioral therapy
- Meditation
- Breathing exercises
- Acupuncture
- Exercise
- Referral to pain specialist, if available

37

Opioid Prescription

- Prescribe immediate release opioids instead of extended release/long-acting opioids
- Small dose, less than 50 MME (morphine milligram equivalents) per day
- Prescribe for as needed pain rather than on a scheduled basis (scheduled may contribute to tolerance and dose escalations)
- Offer naloxone and overdose prevention education to your patient and their household members

38

Calculating MME

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Morphine	1
Oxycodone	1.5
Oxymorphone	3
Methadone:	**CONVERSION FACTOR**
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥61-80 mg/day	12

Goal: less than 50 MME per day

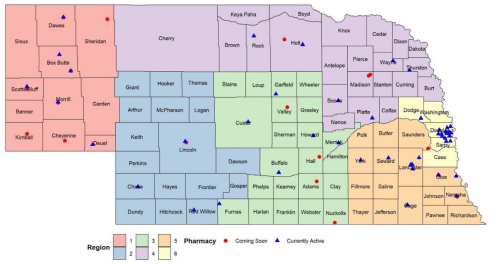
Caution: Do not use to convert one opioid to another

39

Narcan Map

Coming Soon

Ashland
Atkinson
Gordon
Grand Island
Hastings
Kimball
Norfolk
Ord
Sidney
Superior



Current as of 2/23/2022

https://dhhs.ne.gov/Behavioral%20Health%20Documents/NaloxoneMap.pdf

40

What can Pharmacists do?

- Communicate dangers of opioid misuse to pregnant women- 31.9% reported that they didn't receive counseling when prescribed opioids
- Routinely ask all patients about unhealthy drug use
- Advocate for minimum quantities, discontinuation, alternative treatments
- Contact the prescriber with questions or concerns
- Be aware of community support for referral
- Help with contraception needs

41

Assess, Verify, and Consult

- Look for 'red flags' that the patient might be struggling with substance use disorder or diverting medications, such as:
  - Forged prescriptions (e.g., Lack of common abbreviations or overly legible handwriting)
  - Prescriptions originating from outside the immediate geographic area
  - Altered prescriptions (e.g., multiple ink colors or handwriting styles)
  - Cash payments
  - Inconsistent or early fills
  - Multiple prescribers
- Validate prescriber DEA registration and patient identification
- If available, check drug monitoring program (PDMP) as well as patient records

42

Pain Management during Delivery

- Discuss a pain management plan with the patient
- Ex. Discuss epidural
- Consider injectable NSAIDs, like ketorolac, for pain relief after delivery
- Continue to give maintenance dosing for women on MAT (but this does not provide enough pain relief for labor- offer epidural/spinal analgesia as well)
- Avoid mixed opioid agonist-antagonists, such as nalbuphine, butorphanol, pentazocine- they can cause acute withdrawal

43

Care for Infant after Delivery: NOWS Management

- Observation period
- Non-pharmacologic interventions
- Pharmacotherapy

44

Observation Period

- AAP Recommendation:
  - Minimum 3 days for short-acting opioid exposure
  - 4-7 days for buprenorphine and sustained-release opioids
  - 5-7 days for methadone
  - Limited evidence available to direct recommendation
- Excess observation could increase mother-infant separation
- Rooming-in led to less pharmacologic intervention, shorter hospital stays, and may facilitate mother-infant bonding

45

Nonpharmacologic Intervention

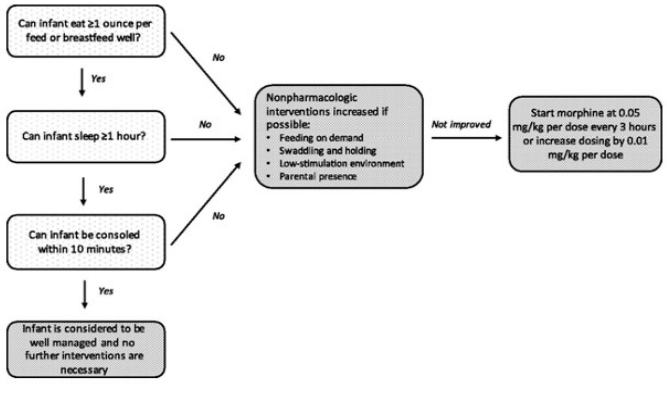
- Educate caregivers on clinical signs of NOWS and engage them in the treatment process
- Support mothers to help them manage guilt and anxiety
- Low-stimulation, dimly lit environment
- Swaddling
- Skin-to-skin contact with caregivers
- Encourage breastfeeding, unless mother is HIV positive, has had a relapse within the past 30 days, or is using an illicit substance
  - Refer to the Academy of Breastfeeding Medicine Clinical Protocol
  - https://www.bfmed.org/assets/DOCUMENTS/PROTOCOLS/21-drug-dependency-protocol-english.pdf

46

Eat, Sleep, Console

- New (2018) model of care for NOWS
- Focuses on:
  - Maximizing nonpharmacologic interventions
  - Family education and involvement
  - Using morphine on an as-needed basis for symptoms
- Works to empower mothers to care for their infants
- Found to decrease length of hospital stay, need for pharmacologic intervention, and cost of treatment

47



Eat, Sleep, Console Model Approach

48

Care for Mother after Delivery

- Refer to opioid use disorder treatment if mother is not already receiving treatment
- Screen for depression and other mental health disorders
  - May reduce risk of child maltreatment
- Discuss effective contraception
- Connect mothers with needed community resources, such as housing, childcare, etc.
- Schedule frequent follow-up appointments

49

References

- Bratberg, J. P., Smothers, Z. P., Collins, K., Erstad, B., Ruiz Veve, J., & Muzyk, A. J. (2020). Pharmacists and the opioid crisis: A narrative review of pharmacists' practice roles. *Journal of the American College of Clinical Pharmacy, 3*(2), 478-484.
- Centers for Disease Control and Prevention. (2019). *Changes in opioid prescribing practices.* Retrieved December 09, 2021, from https://www.cdc.gov/drugoverdose/deaths/prescription/practices.html
- Centers for Disease Control and Prevention. (2020). *Interactive training series for healthcare providers: Applying CDC's guidelines for prescribing opioids.* Retrieved December 01, 2021, from https://www.cdc.gov/opioids/providers/training/interactive.html
- Chasnoff, I. J., McGourty, R. F., Bailey, G. W., Hutchins, E., Lightfoot, S. O., Pawson, L. L., et al. (2005). The 4P's plus© screen for substance use in pregnancy: Clinical application and outcomes. *Journal of Perinatology, 25*(6), 368-374.
- Choi, S., Stein, M. D., Raifman, J., Rosenbloom, D., & Clark, J. A. (2021). Motherhood, pregnancy and gateways to intervene in substance use disorder. *Health & Social Care in the Community,*
- College of Psychiatric and Neurologic Pharmacists. (2016). *Opioid use disorders: Interventions for community pharmacists.* Retrieved November 23, 2021, from http://pcssnow.org/wp-content/uploads/2016/08/CPNP-Opioid-Guideline.pdf
- Committee on Obstetric Practice. (2017). Committee opinion no. 711: Opioid use and opioid use disorder in pregnancy. *Obstetrics and Gynecology, 130*(2), e81-e94.

50

References (Cont.)

- Desai, R. J., Hernandez-Diaz, S., Bateman, B. T., & Huybrechts, K. F. (2014). Increase in prescription opioid use during pregnancy among medicaid-enrolled women. *Obstetrics and Gynecology, 123*(5), 997.
- Devlin, L. A., Young, L. W., Kraft, W. K., Wachman, E. M., Czynski, A., Merhar, S. L., et al. (2021). Neonatal opioid withdrawal syndrome: A review of the science and a look toward the use of buprenorphine for affected infants. *Journal of Perinatology,* , 1-7.
- Frazer, Z., McConnell, K., & Jansson, L. M. (2019). Treatment for substance use disorders in pregnant women: Motivators and barriers. *Drug and Alcohol Dependence, 205*, 107652.
- Grisham, L. M., Stephen, M. M., Coykendall, M. R., Kane, M. F., Maurer, J. A., & Bader, M. Y. (2019). Eat, sleep, console approach: A family-centered model for the treatment of neonatal abstinence syndrome. *Advances in Neonatal Care, 19*(2), 138-144.
- Grossman, M. R., Lipshaw, M. J., Osborn, R. R., & Berkwitt, A. K. (2018). A novel approach to assessing infants with neonatal abstinence syndrome. *Hospital Pediatrics, 8*(1), 1-6.
- Healthcare Cost and Utilization Project. (2020). Neonatal abstinence syndrome births: Trends in the united states, 2008-2019.
- Hirai, A. H., Ko, J. Y., Owens, P. L., Stocks, C., & Patrick, S. W. (2021). Neonatal abstinence syndrome and maternal opioid-related diagnoses in the US, 2010-2017. *Jama, 325*(2), 146-155.

51

References (Cont.)

- Illinois Perinatal Quality Collaborative. (2019). *Mothers and newborns affected by opioids SBIRT simulations guide.* Retrieved December 12, 2021, from https://ilpqc.org/ILPQC%202020%2B/MNO-OB/Simulation_guide_FINAL_10.10.19%2BAppendix_logo%20fix_Jenny_updated%2010.16.19.pdf
- Illinois Perinatal Quality Collaborative, Illinois Department of Public Health. *Neonatal absitnence syndrome: What you need to know.* Retrieved 12/07, 2021, from https://ilpqc.org/wp-content/docs/toolkits/MNO-OB/NAS_WhatYouNeedToKnow_Half-Pager.pdf
- Ko, J. Y., Patrick, S. W., Tong, V. T., Patel, R., Lind, J. N., & Barfield, W. D. (2016). Incidence of neonatal abstinence syndrome—28 states, 1999–2013. *Morbidity and Mortality Weekly Report, 65*(31), 799-802.
- Leyenaar, J. K., Schaefer, A. P., Wasserman, J. R., Moen, E. L., O'Malley, A. J., & Goodman, D. C. (2021). Infant mortality associated with prenatal opioid exposure. *JAMA Pediatrics,*
- Muzzy Williamson, J. D., DiPietro Mager, N., Bright, D., & Cole, J. W. (2021). Opioid use disorder: Calling pharmacists to action for better preconception and pregnancy care. *Research in Social and Administrative Pharmacy,* doi:https://doi.org/10.1016/j.sapharm.2021.08.004
- National Institute on Drug Abuse. (2021). *Overdose death rates.* Retrieved December 09, 2021, from https://www.drugabuse.gov/drug-topics/trends-statistics/overdose-death-rates
- Patrick, S. W., Barfield, W. D., Poindexter, B. B., Cummings, J., Hand, I., Adams-Chapman, I., et al. (2020). Neonatal opioid withdrawal syndrome. *Pediatrics, 146*(5)

52

References (Cont.)

- Ray-Griffith, S. L., Wendel, M. P., Stowe, Z. N., & Magann, E. F. (2018). Chronic pain during pregnancy: A review of the literature. *International Journal of Women's Health, 10*, 153-164.
- Reddy, U. M., Davis, J. M., Ren, Z., Greene, M. F., & Opioid Use in Pregnancy, Neonatal Abstinence Syndrome, and Childhood Outcomes Workshop Invited Speakers. (2017). Opioid use in pregnancy, neonatal abstinence syndrome, and childhood outcomes: Executive summary of a joint workshop by the eunice kennedy shriver national institute of child health and human development, american college of obstetricians and gynecologists, american academy of pediatrics, society for maternal-fetal medic centers for disease control and prevention, and the march of dimes foundation. *Obstetrics and Gynecology, 130*(1), 10-28.
- Reece-Stremtan, S., Marinelli, K. A., & Academy of Breastfeeding Medicine. (2015). ABM clinical protocol# 21: Guidelines for breastfeeding and substance use or substance use disorder, revised 2015. *Breastfeeding Medicine, 10*(3), 135-141.
- Thakur, T., Frey, M., & Chewning, B. (2019). Pharmacist services in the opioid crisis: Current practices and scope in the united states. *Pharmacy, 7*(2), 60.
- Vowles, K. E., McEntee, M. L., Julnes, P. S., Frohe, T., Ney, J. P., & van der Goes, D. N. (2015). Rates of opioid misuse, abuse, and addiction in chronic pain: A systematic review and data synthesis. *Pain, 156*(4), 569-576.
- Yonkers, K. A., Gotman, N., Kershaw, T., Forray, A., Howell, H. B., & Rounsaville, B. J. (2010). Screening for prenatal substance use: Development of the substance use risk profile-pregnancy scale. *Obstetrics and Gynecology, 116*(4), 827-833.

Nebraska Perinatal Quality Improvement Collaborative NPQIC

53