CURRENT STATE OF THE OPIOID CRISIS: UNDERSTANDING THE NEEDS OF FAMILIES

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TODAY’S CHARGE

How can the opioid crisis serve as a vehicle to advance human services that improve family outcomes even after the crisis subsides?
OVERVIEW

• The opioid crisis
• Neonatal abstinence syndrome
• Beyond opioids – Key Issues
• Looking ahead
1827: Morphine marketed by Merck

- Pain relief
- Treatment of ‘opium addiction’
- Treatment of ‘alcoholism’

Additional Source: Hendree Jones, PhD
1874: Diacetylmorphine discovered

- 1898 Bayer pharmaceutical marketed under name Heroin
- The marketing campaign
- "safe, non-addictive" substitute for morphine

1906: American Medical Association approved Heroin for general use and recommended that it be used in place of morphine.
ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

To the Editor: Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients, Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

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Number and Type of Citations of the 1980 Letter

Introduction of Oxycontin

1996
American Pain Society “Pain as the 5th Vital Sign Campaign”

1998
Federation of State Medical Boards published “Model Guidelines for the Use of Controlled Substances for the Treatment of Pain.”

2003
The New York Times reports tripling of young adults (18-25) abusing opioid pain relievers. DEA and FDA create task force to crack down on internet sales of opioids.

2007
Maker of OxyContin, Purdue Pharma, plead guilty to “criminal charges that they misled regulators, doctors and patients about the drug’s risk of addiction and its potential to be abused.” Results in a $600M settlement.

2000+
Rapid expansion of opioid use in the US

OPIOID PRESCRIPTIONS ARE INCREASING

From 1999 to 2015, opioid prescribing rates rose by 3x

The US uses 4x as many opioids as Europe
Opioid Prescribing in the US Has Dropped

Source: CDC, https://www.cdc.gov/drugoverdose/data/prescribing.html
3 Waves of the Rise in Opioid Deaths

- **Wave 1:** Rise in Prescription Opioid Overdose Deaths
- **Wave 2:** Rise in Heroin Overdose Deaths
- **Wave 3:** Rise in Synthetic Opioid Overdose Deaths

NEONATAL ABSTINENCE SYNDROME (NAS)

- A withdrawal syndrome experienced by drug exposed newborns after birth
- Generally follows opioid exposure, though other drugs have been implicated
  - Alcohol, benzodiazepines (valium, etc.), barbiturates (phenobarbital, etc.)
- 40-80% of methadone exposed newborns develop NAS
  - ~5% of those exposed to opioid pain relievers
Incidence of NAS in the US, 2000-2016

Mean hospital costs for an infant with NAS covered by Medicaid are often 5-fold higher than for an infant without NAS.

NAS resulted in approximately $2 billion in excess costs among Medicaid-financed deliveries between 2004 and 2014.
NAS TREATMENT

Goal of treatment: to “control” withdrawal, minimizing complications (e.g. seizure)

Non-pharmacologic intervention (e.g. environmental controls, etc)
  • Rooming in, Breastfeeding

Involves using opioids (morphine, methadone) and slowing decreasing dose
SHIFTING MODELS OF CARE

Traditional (and common):
- Transfer to a tertiary care facility
- Separate mom & baby, place baby in NICU
- Treatment separate from mother
- Breastfeeding not allowed, or inconsistent
- Focus on correct medicine, instead of care process
- Burn-out common, lack of trauma-informed processes
- Care not standardized
- Long lengths of treatment & stay

Newer care models:
- Transfer to a tertiary care facility not necessary
- Keep dyad intact, out of NICU when possible
- Treatment inclusive of mother
- Breastfeeding encouraged & supported
- Focus on care process, not just medications
- Engage staff in trauma-informed care
- Use of standardized protocols
- Greater provider/patient satisfaction, reduced stay
An interdisciplinary team from the Vanderbilt University Medical Center and the Monroe Carrell Jr. Children’s Hospital, Team HOPE seeks to provide evidence-based care for opioid-exposed infants. The team is comprised of:

- physicians
- nurses
- social workers
- child life specialists
- lactation consultants
- volunteers
CHARACTERISTICS OF TEAM HOPE INFANTS

- 231 Infants met the Team HOPE inclusion criteria
- 24% Were diagnosed with NAS
- 19% Received one or more doses of morphine
- 3 Were readmitted within 7 days of discharge
LENGTH OF STAY (DAYS)

5 DAYS: median length of stay for all Team HOPE infants

13 DAYS: median length of stay for infants diagnosed with NAS
KEY POINT #1: It’s Not Just About Opioids
## Percent of Women Using Substances in Past Month

<table>
<thead>
<tr>
<th></th>
<th>Pregnant Women</th>
<th>Non-Pregnant Women</th>
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</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Age 15-44</td>
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<tr>
<td><strong>Illicit Drugs</strong></td>
<td></td>
<td></td>
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<tr>
<td>Marijuana</td>
<td>7.1%</td>
<td>12.2%</td>
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<tr>
<td>Cocaine</td>
<td>0.4%</td>
<td>0.8%</td>
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<tr>
<td>Opioids</td>
<td>1.4%</td>
<td>1.6%</td>
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<tr>
<td>Psychotherapeutics</td>
<td>1.8%</td>
<td>3.0%</td>
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<tr>
<td><strong>Legal Drugs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>14.7%</td>
<td>20.8%</td>
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<tr>
<td>Alcohol</td>
<td>11.5%</td>
<td>54.5%</td>
</tr>
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<td>Binge Alcohol Use</td>
<td>5.2%</td>
<td>29%</td>
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<td><strong>Illicit OR Legal Drugs</strong></td>
<td><strong>24.7%</strong></td>
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**Source:** 2017 National Survey on Drug Use and Health

@STEPHENWPATRICK
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<td>Ages 18-25</td>
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Source: 2017 National Survey on Drug Use and Health
KEY POINT #2: Getting Into Treatment is Difficult
Millions need treatment...

- **14.4 million** adults with a past year alcohol use disorder (74.5% of adults with an SUD)
- **2.5 million** adults with both alcohol and illicit drug use disorder (12.9% of adults with an SUD)
- **7.4 million** adults with a past year illicit drug use disorder (38.3% of adults with an SUD)
- **11.9 million** adults with an alcohol use disorder only
- **4.9 million** adults with an illicit drug use disorder only

**19.3 million** adults aged 18 or older with past year SUDs (2018)
...and most aren’t getting it

21.2 million people needed substance use treatment in 2018

15.5 million people needed alcohol use treatment in 2018

88.9% did not receive treatment

84.1% did not receive treatment

91.1% did not receive treatment

Source: Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2017 and 2018.
Medications for Opioid Use Disorder Improve Outcomes

Buprenorphine, methadone and naltrexone

- Methadone - full mu-opioid receptor agonist, typically requires daily outpatient visits to an OTP to receive medication
- Buprenorphine - partial mu-opioid receptor agonist and kappa-opioid receptor antagonist generally used in the outpatient setting, not requiring daily visits
- Naltrexone – (Vivitrol, injectable) – opioid antagonist, most affinity for the mu-opioid receptor, used in outpatient setting
Getting Treatment Difficult, Expensive

- 849 heroin-using “secret shoppers,” trying to get treatment with Medicaid or self-pay
- Appointments offered to 52% of those with Medicaid, 62% of self-pay
  - Rural: Medicaid 48%, self-pay 54%
- Wait time: median 6 days Medicaid, 5 days self-pay
- Median cash payment for an appointment: $250

Despite evidence that medications for opioid use disorder improve outcomes for mothers and infants, most pregnant women with opioid use disorder in the US are not receiving these medications.
PREGNANCY, INSURANCE: BARRIERS TO ACCESSING TREATMENT

Opioid agonist therapy (OAT) providers are less likely to treat pregnant women.

91% Of opioid treatment providers accept pregnant patients.

53% Of buprenorphine providers accept pregnant patients.
KEY POINT #3: Communities Matter
Economic Factors, Lack of Opportunity Matters

**ECONOMIC FACTORS**

From 2009-2015, the 10-year unemployment rate increased from 6.5% to 8.2% and was associated with higher rates of NAS in rural remote counties. Adjusted IRR, 1.34

In rural remote counties, a higher proportion of manufacturing jobs was associated with higher rates of NAS. Adjusted IRR, 1.06

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Mental Health

78% of metropolitan counties
86% of metro-adjacent rural counties
91% of rural remote counties

In our study, had a shortage of mental health providers

Counties with a shortage of mental health providers were associated with higher rates of NAS

Adjusted IRR, 1.17

KEY POINT #4: Context Matters
Trauma common among women in treatment

- 74% reported sexual abuse
- 72% reported emotional abuse
- 52% reported physical abuse

Adverse child experiences likely also common

- Adults with >5 adverse child experiences compared to 0
  - 8 times as likely to have lifetime substance dependence (aOR 7.7, 95%CI 4.7-12.7)
  - 10 times as likely to have ever injected drugs (aOR 10.1, 95%CI 4.6-22.0)

How can human services programs partner with health systems to set families up for success?

Start with training/bonding during the birth hospitalization

- Breastfeeding
- Engaging family
- Promoting maternal (and paternal recovery
- Assesses family needs/follow-up
- Assesses other risks (mental health, infectious)

Consider post-discharge needs

- Home Visitation
- Child Welfare
- IDEA Part C (Early Intervention)
- More frequent pediatrician follow-up
- Early Head Start
- Coordinate with maternal treatment and recovery
- Programs for economic stability
- Housing
More Infants US in the Foster Care System

2011

2017

Removals per 1000 births

PLANS OF SAFE CARE

State’s lead agency for the grant program will coordinate with:

- Substance use disorder treatment agency
- Early care/education
- State Medicaid program
- Public health and mental health agencies
- Residential treatment for pregnant and post-partum women
- State judicial system
- Maternal, infant, and early childhood home visiting
- Title V (MCH Block Grant)
- Individuals with Disabilities Education Act Part C (Early Intervention Services)

Child welfare agency
CONCLUSIONS

• The scope of the current crisis is unprecedented
• We cannot forget about substances other than opioids
• This is not just about drug use, it’s about the context, community, economic opportunity, social network
• The opioid crisis could be a vehicle to connect & grow collaborations in human services and beyond
USING MULTIPLE SUBSTANCES

• Opioid misuse often occurs with other substances
  • Among pregnant women misusing opioids in last year (compared to those who did not), in the last month:
    • 22.9% used marijuana (versus 2.6%)
    • 23.9% used alcohol (versus 8.1%)
    • 43.5% used tobacco (versus 14.5%)

Overall Foster Care Removals & Parental Substance Use Removals for Infants (<1 year) in the U.S. Foster System Are Growing

At least 1/2 of U.S. foster care placements for infants are associated with PARENTAL SUBSTANCE USE.
KEY POINT:
Transition from Incarceration High-Risk
Release from Prison — A High Risk of Death for Former Inmates

Ingrid A. Binswanger, M.D., Marc F. Stern, M.D., Richard A. Deyo, M.D., Patrick J. Heagerty, Ph.D., Allen Cheadle, Ph.D., Joann G. Elmore, M.D., and Thomas D. Koepsell, M.D.
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**Figure 1.** Mortality Rates among Former Inmates of the Washington State Department of Corrections during the Study Follow-up (Overall) and According to 2-Week Periods after Release from Prison.

The dashed line represents the adjusted mortality rate for residents of the State of Washington (223 deaths per 100,000 person-years), and the solid line represents the crude mortality rate among inmates of the state prison system during incarceration (201 deaths per 100,000 inmate person-years).
Pregnant Women Referred for Treatment from the Criminal Justice System Are Not Receiving Medications

*Adjusted for age, race/ethnicity, educational attainment, employment, census region, and service setting