The Opioid Epidemic: Addressing the Patient Care Continuum through Academic Medicine

Alison V. Holmes, MD
Sarah Wakeman, MD
James Becker, MD

January 24, 2017
Mapping The Epidemic

Overdose deaths per 100,000

Opioid Deaths Climb, Causing Concern Among Officials

By Carolyn Crist  |  December 29, 2016  |  2:00pm
images from Centers for Disease Control and Prevention

SCIENCE > NEWS > OPIOID CRISIS

America is in the middle of its worst drug epidemic ever. Obamacare’s repeal could make it worse.

A new analysis found 2.8 million people with drug use disorders would lose access to treatment if Obamacare is repealed.

Updated by German Lopez  |  @germanllopez  |  german.lopez@ vox.com  |  Jan 12, 2017, 11:50am EST

Cure For Opioid Epidemic? Better Compliance Packaging Could Combat Prescription Pill Abuse Among Seniors

By Janice Williams

ON 01/13/17 AT 8:30 AM

How to Treat an Opioid Epidemic

Addiction isn’t an illness like any other. Patients need not just the right medication and treatment, but also life-long support.

Outdated treatments and drug company monopolies make opioid epidemic worse

By Brian Robertson  |  1/13/17 12:03 AM

Young Victims of the Opioid Epidemic

By The Editorial Board  |  Jan 06, 2017

HOW WISDOM TEETH ARE FUELING THE OPIOID EPIDEMIC
By Melissa Pandika

163 SHARES

A clinicians guide to helping people who have been struggling with drug addiction transition from opioids

AAMC
AAMC Educational Series

- AAMC committed to addressing opioid epidemic through our membership
- AAMC actively engaged with professional/health workforce organizations
- AAMC conducting webinar series addressing the epidemic across the mission areas of academic medicine

Educational Series Dates

Clinical Care: January 24th
Research: February 27th
Medical Education: March 5-7
Today’s Speakers
Dr. Alison V. Holmes – Dartmouth-Hitchcock
  • Neonatal Abstinence Syndrome (NAS)
Dr. Sarah Wakeman – Massachusetts General Hospital (MGH)
  • Inpatient and outpatient innovations
Dr. James Becker – Marshall University, WV
  • Anatomy of a crisis – Academic Medicine and Community approach to crisis
Improved family-centered care at lower cost: Rooming-in to treat neonatal abstinence syndrome

Alison V. Holmes, MD, MPH
Associate Professor of Pediatrics
January 24, 2017
Neonatal Abstinence Syndrome

Presentation
- Syndrome of drug withdrawal in neonates
- Spectrum of signs of and symptoms

Diagnosis/Course
- History
- Toxicology screens
- Environmental care
- Medication
Triple Aim

- Population Health
- Experience of Care
- Per Capita Cost
NAS in NH/VT

Higher rates 2012: 1.9% vs 0.6% nationally

In 2015, 10% of newborns at CHaD opioid exposed in utero

Source: NH Department of Health and Human Services, Maternal and Child Health
Increasing Incidence of the Neonatal Abstinence Syndrome in U.S. Neonatal ICUs

Veeral N. Tolia, M.D., Stephen W. Patrick, M.D., M.P.H., Monica M. Bennett, Ph.D., Karna Murthy, M.D., John Sousa, B.S., P. Brian Smith, M.D., M.B.A., and H. Clark, M.D.,

4% of NICU beds occupied by babies with NAS

BACKGROUND
The incidence of the neonatal abstinence syndrome, a drug-withdrawal syndrome that most commonly occurs after in utero exposure to opioids, is known to have

LOS: 24 to 32 days
Plan-Do-Study-Act cycles

1. RN scoring training/reliability
2. Family interviews
3. Baby-centered scoring
4. Prenatal education
5. Parent symptom diary
6. Standardize score interpretation
7. Rooming-in pilot
8. “Cuddlers”
9. Full rooming-in
10. Transfers

April 2013

October 2014
Parent Voices

Desire for education/preparation

“I wish I had known a lot more about NAS before I gave birth…I didn’t think the consequences… would affect the baby so much.”

Partners in care team

“I know my baby more than anybody else does. So they have to rely on that to help them out you know with scoring and knowing what she’s going through.”

Interactions with staff

“I’m a recovering heroin addict. I think overcoming something like that and then feeling like you are judged because of it, you end up building some resentment towards people.”
Results: Pharmacologic Treatment

Percentage of Patients Receiving Morphine

Baseline: 46%
Intervention Year 1: 51%
Intervention Year 2: 27%

Last 6 months: 20%
Results: Hospital costs

Exposed population: $11,000 to $5,300
Meta-analysis: NAS, rooming-in, LOS

A

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Rooming-In Mean</th>
<th>Rooming-In SD</th>
<th>Rooming-In Total</th>
<th>Comparison Mean</th>
<th>Comparison SD</th>
<th>Comparison Total</th>
<th>Weight</th>
<th>Mean Difference IV, Random, 95% CI</th>
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<tr>
<td><strong>Total (95% CI)</strong></td>
<td><strong>207</strong></td>
<td></td>
<td><strong>387</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
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<td><strong>-11.29 [-17.40, -5.19]</strong></td>
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Heterogeneity: Tau² = 57.30; Chi² = 75.68, df = 6 (P < 0.00001); I² = 92%
Test for overall effect: Z = 3.63 (P = 0.0003)

B

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<td><strong>91</strong></td>
<td></td>
<td><strong>164</strong></td>
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<td><strong>-14.12 [-19.28, -8.97]</strong></td>
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Heterogeneity: Tau² = 12.07; Chi² = 5.38, df = 3 (P = 0.15); I² = 44%
Test for overall effect: Z = 5.37 (P < 0.00001)
Implications

• Centers with LOS of a month or more could significantly shorten hospital course
• If model adopted widely, potential cost savings and positive impact on families are tremendous

$1.8 billion—charges
$600 million--costs
Students in project, in clinical care
The MGH Substance Use Disorder Initiative
Sarah E. Wakeman, MD, FASAM
Medical Director
Assistant Professor of Medicine,
Harvard Medical School
Addiction #1 Community and MGH Priority

Community Defined Priorities

Quality of Life Survey Data, All Communities Leading Health Concerns

- Substance Use
- Crime & Violence
- Obesity/Poor Diet & Inactivity
- Mental Health
- Environment
- Education
- Housing

2015

2012
Comprehensive Approach

Recovery Coaches

Inpatient (ACT)
Bridge Clinic
Outpatient
Community

Prevention, Education & Evaluation
Inpatient: Addiction Consult Team

• Specialized multidisciplinary approach
  • MDs (med/psych), NPs, LICSWs, Clinical pharmacist, resource specialist, trainees

• Hospital admission is a “reachable moment”
  • Systematic screening (RN-based AUDIT-C/NIDA-1)
  • Motivational enhancements/engagement
  • Pharmacotherapy Initiation
  • Linkage to treatment
Inpatient: Addiction Consult Team

- ACT Consults: 2259 (since October 2014)
  - Unique Patients: 1793
  - ~64% alcohol use disorder, 28% opioid use disorder

- Patients seen by ACT show significant decrease in severity of drug use & increase in abstinence 30 days post-hospitalization
Patients seen by ACT more likely to be discharged with pharmacotherapy

Pharmacotherapy - Discharge Rx*

"None" includes all pharmacotherapy excluding those medications specifically analyzed

SUDs Patients on ACT Floors

ACT Patients During Consult Admission

*"None" includes all pharmacotherapy excluding those medications specifically analyzed
Bridge Clinic: Transitions from Inpatient & ED and Connection to Community Care

- Opened February 2016

- Addiction Medicine Physician, Psych NP, Resource Specialist, Recovery Coach, Clinical Pharmacist

- Provides pharmacotherapy, peer support services, referral & linkage to outside treatment services

- Bridge clinic-ED Pilot: patients with opioid use disorder who are medically cleared brought directly to the Bridge Clinic to begin treatment
Bridge Clinic Snapshot

- April-November:
  - 196 patients seen
  - 151 seen more than once

- Number of visits:
  - 1 visit: 23%
  - 2-4 visits: 31%
  - 5-9 visits: 22%
  - 10+ visits: 25%

- Median number of days followed in Bridge clinic = 69 days

- Median number of days between visits = 7

- 84% of patients have had a same day visit and 68% have had a walk-in visit
Outpatient: Transforming Care

“People do not fail treatment, treatment fails people”

- Multi-disciplinary teams of SUD champions
- Increased access to pharmacotherapy & counseling
- Twice monthly risk rounds
- Recovery Coaches
- Collaboration with community-based treatment providers
Recovery Coaches

• 8 coaches

• 813 patients touched

• 7557 coach contacts

• 4,610 hours of contact

• Total caseload ranges 77-166
  – Active caseload 43-75

• Patients report they improve patient experience, facilitate access to social services, and provide ongoing social support
Changing Culture, Changing Care

“If I were anywhere else I would have relapsed by now but I feel very supported here by the addiction team and the medical team. I don't feel stigmatized.”

• Physicians who had a patient receive care from the initiative:
  – Find caring for patients with SUD more satisfying
  – Have less negative attitudes towards SUD
  – Feel more prepared to diagnose and treat SUD
  – More likely to prescribe pharmacotherapy, naloxone, and provide addiction treatment themselves
Thank You!

- swakeman@partners.org
- @DrSarahWakeman
- The MGH SUD Initiative Team...
  - And many others!
Anatomy of a crisis – Academic Medicine and Community approach to crisis

James Becker, M.D.
Vice Dean for Government Affairs and Health Policy
Joan C. Edwards School of Medicine
• Today, Substance Use Disorder poses the greatest threat to health in Appalachian Region.

• Marshall University Joan C. Edwards School of Medicine is a small school located in the heart of the SUD epicenter.

• Physicians-in-training are exposed to the full scope of the problem and involved in the care of individuals struggling with addiction.
Where West Virginia Stands

- West Virginia has the highest rate of drug overdose deaths in the country (39.5 deaths per 100,000 residents), more than double the national average.
  - 2012 to 2015, death count increased 29%.
  - 2015, 700+ overdose deaths*
  - As of 11/9/16, 570+ people have died of an overdose*
  - 2014, WV had highest age-adjusted drug overdose death rate of 35.5.
  - 30% greater than next highest state, New Mexico.

- West Virginia has the second highest rate of prescription drugs filled per capita according to 2015 data from the Kaiser Family Foundation.
  - West Virginia’s rate is 21.8 drugs per capita, compared to 12.7 nationwide.

*Reported by WV Health Statistics Center
West Virginia Trend in Overdose Deaths

WV Drug Overdose Deaths by Year & Manner
2001-2015 Occurrences

- All (inc. suicides and homicides)
- Accident
- Undetermined

Data Source: WV Health Statistics Center, Vital Statistics System
2015 preliminary data
Trend Analysis – 8 Commonly Involved Drugs

WV Drug Overdose Deaths by Selected Drug Involved 2001-2015 Occurrences by Year

Data Source: WV Health Statistics Center, Vital Statistics System 2015 preliminary data
Accidental Rx Drug Overdose Death Rates Reach New Highs
(WV resident deaths occurring in WV)

The statewide death rate from accidental overdoses involving prescription drugs rose from 5.7 in 2001 to 22.2 in 2015.

McDowell County had the state’s highest death rate in 2001 at 38.0. Wyoming County had the highest in 2015 at 94.8. Raleigh, Boone and Webster counties’ rates also fall in the 44.5 and higher range.
Overdose Death

2015 Age Adjusted Drug Overdose Death Rate by Jurisdiction

Death Rate per 100,000

- United States
- West Virginia
- Cabell County
- Huntington
Community Responses

• Comprehensive, multidisciplinary approach
  • Medical, behavioral and social approaches
    o Prevention, Treatment, Recovery, Reintegration
  • Multiple models of Medication Assisted Treatment
  • Abstinence programs
  • Data collection and analysis
  • Target populations
    o Substance Abuse in Pregnancy, Neonatal Abstinence Syndrome
    o Dual diagnosis individuals
    o Corrections system
Heroin in Huntington

Property Crime Compared to Heroin Seized 2010 - 2013

Huntington, WV, Mayor’s Office of Drug Control Policy, used by permission
Hepatitis B

Acute Hepatitis B rate by jurisdiction and year

- United States, 2014
- West Virginia, 2014
- Cabell County, 2014
- Cabell County, 2015

Rate per 100,000
Hepatitis C

Acute Hepatitis C rate by jurisdiction and year

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<tr>
<th>Jurisdiction</th>
<th>Year</th>
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<tr>
<td>Cabell County, 2015</td>
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<td>5.0</td>
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</table>

Rate per 100,000
Harm Reduction efforts

• Needle exchange to reduce risk of hepatitis, HIV
  • Service centered at local health department
  • Engagement and educational opportunity
• Overdose prevention
  • Naloxone availability
  • Educational efforts
  • Recognition of at-risk individuals
Neonatal Abstinence Syndrome (NAS)

- NAS occurs when a child is exposed to medication during fetal development and then, experiences a withdrawal syndrome after birth. The withdrawal can be very serious and requires special care strategies.
- Most such occurrences involve opiate pain medication or illicit opiates.
- The syndrome also occurs with exposure to other medications, such as benzodiazepines and mood stabilizers.
- In the Appalachian region multi-drug exposure is common.
Neonatal Abstinence Syndrome

Loudin, Sean, MD, used by permission
Community response on NAS

• Education and prevention efforts
• Perinatal Partnership state-wide efforts
• Promotion of long-acting reversible contraception (LARC)
• Screening for issues related to domestic violence and trauma
• Safe housing
• Pediatric residential care for NAS (Lily’s Place)
Training on Substance Use Disorder

• Integrated into the curriculum of behavioral health and pharmacy in MS 1 and 2.

• In clinical years numerous settings create opportunity for student involvement in the treatment of patients with SUD.

• Marshall Medical Outreach Clinic (MMOC) provides care to the homeless population.
State efforts to address contributing factors

- Mandatory training regarding the use and management of opiates in chronic non-malignant pain.
- Implementation of a Prescription Drug Monitoring Program.
- Adoption of CDC Guidelines on the Use of Opiates in Chronic Pain.
- Support and monitoring of medication-assisted treatment programs.
- Establishment of a treatment hot-line to assist patients seeking care.
Thank You!

I would like to acknowledge the following for their contribution

Jim Johnson, Director
Mayor’s Office of Drug Control Policy

Michael E. Kilkenny, MD, MS
Physician Director, Cabell-Huntington Health Department

WV Medicaid

WV Health Statistics Center,
Vital Statistics System
For more information on getting involved with AAMC on opioids or addiction management efforts please contact:

jfaerberg@aamc.org
202-862-6221