THE DEPARTMENT OF EMERGENCY MEDICINE

Project POINT

Meeting post-overdose patients where they are

Drs. Dan O’Donnell and Krista Brucker
Indiana University School of Medicine
Department of Emergency Medicine
Objectives

1. Not your typical narcan talk
2. Discuss the current opioid epidemic
3. Describe the public safety response to this epidemic
4. What is going on from the hospital end
5. Future possibilities
National Overdose Deaths
Number of Deaths from Opioid Drugs

Source: National Center for Health Statistics, CDC Wonder
IEMS naloxon administrations by year

<table>
<thead>
<tr>
<th>Year</th>
<th>Single administration</th>
<th>Repeat administrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>500</td>
<td>750</td>
</tr>
<tr>
<td>2012</td>
<td>600</td>
<td>450</td>
</tr>
<tr>
<td>2013</td>
<td>700</td>
<td>350</td>
</tr>
<tr>
<td>2014</td>
<td>900</td>
<td>150</td>
</tr>
<tr>
<td>2015</td>
<td>1200</td>
<td>200</td>
</tr>
<tr>
<td>2016</td>
<td>1800</td>
<td>600</td>
</tr>
</tbody>
</table>
Repeat Customers

- Approximately 20% of our patients are re-receiving naloxone
- Anywhere from 2-12 times
  - Almost ½ within 1 year
    - Some as early as 1 day

NARCAN PUNCH CARD
After 9 resuscitations,
your tenth one’s on us!
1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / FREE!
Fatalities

- In a sample of IEMS Naloxone administrations over a 5 year period
  - 9.4% have died
    - 3.3% from a drug related issue
- Having multiple incidents requiring EMS naloxone increases hazard of death by 65%
  - Hazard of death from drug related causes by 200%
Why Is This Happening?

The relentless marketing of pain pills. Crews from one small Mexican town selling heroin like pizza. The collision has led to America’s greatest drug scourge.

The True Tale of America’s Opiate Epidemic

DREAMLAND

SAM QUINONES
ENOUGH WITH THE GLOOM AND DOOM
Public Response

• Increased access to Naloxone
  – Police
  – Fire
  – First Responders

• Layperson Naloxone
Police Naloxone

• Often first on scene
  – Almost 90% had seen an overdose
• Officers can be easily trained to recognize overdose and safely give naloxone
  – Majority felt comfortable delivering
  – There to keep scene safe
• IMPD has been delivering since 2014
POLICE OFFICERS CAN SAFELY AND EFFECTIVELY ADMINISTER INTRANASAL NALOXONE
Rian Fisher, MD, Daniel O’Donnell, MD, Bradley Ray, PhD, Daniel Rusyniak, MD

• Reviewed all police naloxone administrations (N=126)
• Officers appropriately recognized opiate overdose
• Majority of officer delivered naloxone did well
• Overall positive medical response
  – Regained consciousness
  – Only 1 became combative
Police Naloxone

• Can be safely done
• Effective
• Indiana Law allows for this (SB 227)
What About Lay Person Naloxone?
Does It Work?

• Massachusetts experience
  – 20% of rescue attempts were by family members
• People want to be trained
  – Most literature confirms this
• Some communities seeing a “trend” towards decrease in opiate overdose deaths
• More research has to be done to look at effectiveness
So, now what happens?
Post-discharge services provided within 30 days following an opioid-related hospitalization among the privately insured: 2010-14
What if we treated an overdose like a heart attack?
OD or Referral → ED Evaluation & Stabilization → ED Brief Intervention & linkage to care → Rapid ED follow-up → Long-term substance (mis)use/MH care
POINT Goals

- Learn more about our opiate overdose patients
- Increase access to Naloxone among high risk patients
- Provide a brief intervention/harm reduction information
- Link people to treatment/services
- Investigate barriers to accessing treatment
- Collect data
- Use data to improve services in the ED and linkage to care
Original Investigation

Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence
A Randomized Clinical Trial

Gail D’Onofrio, MD, MS; Patrick G. O’Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD;
Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD

• Randomized ED patients to either:
  – Buprenorphine Rx
  – Referral only
  – ED engagement and referral to treatment

• 30 day follow up
  – Significant increase in treatment-rates in suboxone group
  – 78% vs. 35% vs. 46%
**POINT Demographics**  
Feb-Dec 2016

<table>
<thead>
<tr>
<th></th>
<th>POINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>82</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>63.4%</td>
</tr>
<tr>
<td>Female</td>
<td>36.6%</td>
</tr>
<tr>
<td>Median Age</td>
<td>33</td>
</tr>
<tr>
<td>Median Age of 1st Drug Use</td>
<td>13.4</td>
</tr>
</tbody>
</table>

*Source: Project Point Data Set*
# Mental Health History

**POINT Feb-Dec 2016**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Interviews</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>Reported hx mental illness</td>
<td>31</td>
<td>37.8%</td>
</tr>
<tr>
<td>Previous Visits at Midtown</td>
<td>45</td>
<td>54.9%</td>
</tr>
</tbody>
</table>

*Source: Project Point Data Set*
# POINT Observational data
## Feb-Dec 2016

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Interviews</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>Naloxone Knowledge</td>
<td>53</td>
<td>64.6%</td>
</tr>
<tr>
<td>Has access</td>
<td>3</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*Source: Project Point Data Set*
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing Needles</td>
<td>43</td>
<td>52.4%</td>
</tr>
<tr>
<td>Known Hepatitis Positive</td>
<td>26</td>
<td>31.7%</td>
</tr>
<tr>
<td>% of +hep C sharing needles</td>
<td>21</td>
<td>80.8%</td>
</tr>
</tbody>
</table>

*Source: Project Point Data Set*
### POINT Observational data
#### Feb-Dec 2016

<table>
<thead>
<tr>
<th>Interested ED intervention</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment referral</td>
<td>73</td>
<td>89.0%</td>
</tr>
<tr>
<td>HIV testing</td>
<td>57</td>
<td>69.5%</td>
</tr>
<tr>
<td>Hepatitis C testing*</td>
<td>23</td>
<td>41.1%</td>
</tr>
</tbody>
</table>

*56 without known hep C

Source: Project Point Data Set
Lesions from POINT’s 1st year
The role of chronic pain and adulteration

• “I got Norco when I was 12 for a knee injury”
• “I’ve worked construction my whole life. Now, I need it just to go to work”

• “I bought a Xanax bar to help me relax and sleep before a test.”
• “I was bored, so I tried it. I thought it was an Oxy.”
The role of psychiatric disease

Table 3: Reported Mental Health History
Feb-Dec 2016

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Interviews</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>Hx mental illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>17</td>
<td>20.7%</td>
</tr>
<tr>
<td>Bipolar</td>
<td>10</td>
<td>12.2%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>8</td>
<td>9.8%</td>
</tr>
<tr>
<td>PTSD</td>
<td>8</td>
<td>9.8%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>2</td>
<td>2.4%</td>
</tr>
<tr>
<td>Previous Visits at Midtown</td>
<td>45</td>
<td>54.9%</td>
</tr>
</tbody>
</table>

Source: Project Point Data Set

- “Heroin is the only way to make my mind stop racing.”
- “I am on a whole bunch of meds, but they just don’t work.”
The role of childhood trauma

“I was in foster care and it was the only way to make it through.”

“It’s the only way I can forget, just for a little bit, what happened.”

“My mom gave me my first hit when I was eight.”

ACE Scores

<table>
<thead>
<tr>
<th>ACE Score</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>
The role of healthcare system dysfunction

Prescriptions Before the Overdose

- Opiates < 3 months: 5%
- Opiates > 3 months: 10%
- Opiate + Benzo: 20%
- Opiate + 2 Controlleds: 30%
- Benzo < 3 months: 35%
- Benzo > 3 months: 40%
- Avg # Scripts: 45%
- Avg # Providers: 50%
The role of healthcare system dysfunction

Prescriptions After the Overdose

- Any Bup
- Bup < 3 months
- Bup > 3 months
- Any Opiates
- Opiates < 3 months
- Opiates > 3 months
- Opiates + Benzos
- Opiates + 2 Controlled
- Benzo < 3 months
- Benzo > 3 months
- Avg # Scripts
- Avg # Providers

Percentage of Patients
Initial Follow Up

![Bar chart showing percentages of patients in different categories.
- Outpatient non-MAT: 18%
- Buprenorphine: 15%
- Methadone: 2%
- Naltrexone: 2%
- Inpatient (all Bup): 6%
- Other (no Bup): 4%
]
Six month follow up

- Engaged in 3+ visits
- Active at 3 months
- Active at 6 months
- Active on Methadone
- Active on Bup
- Active on Naltrexone
Project challenges

- Limited Treatment Resources
- POINT team availability
- Follow-up on often transient and/or skeptical patients
- Lack of community-based needle exchange/Naloxone distribution
- Limited down-stream resources
  - Detox, MAT availability
  - Legal, DCS advocates
- Limited funding for monitoring and evaluation
Next Steps

Grant Funding from Richard M. Fairbanks Foundation allowing us to:

- Expand POINT outreach/brief intervention
- Provide take home Naloxone kits
- Offer rapid Hepatitis C testing
- Incorporate Peer Support (Recovery Coaches)
- Integrate and support existing outreach efforts
- Incorporate our work flows into existing EMR
- Implement a robust monitoring and evaluation protocol
- Utilize expertise at a local treatment center
Thank you

POINT team
Dr. Dan O’Donnell, Jennifer Hoffman, AJ Warren, Twila Fuqua, Jennifer Dutton
Melissa Reyes, Gloria Haynes

Early Supporters
Andy Chambers, MD, Dan Rusyniak, MD, Dennis Watson, Ph.D.

- Eskenazi Health
- Midtown Mental Health Addictions Team
- Fairbanks School of Public Health
- IU School of Medicine, Department of Emergency Medicine
- Richard M. Fairbanks Foundation
Questions?

Dan O’Donnell
dapodonn@iu.edu

Krista Brucker, MD
krmbruc@iu.edu