Improving Care for Hospitalized Adults with Substance Use Disorder

Understanding needs, engaging leaders, and changing systems

Honora Englander, MD
November 9, 2017
AHA/Physician Leadership Forum
Improving Care for Hospitalized Adults with Substance Use Disorder - understanding needs, engaging leaders, and changing systems
Online Live Webinar - November 09, 2017

The planners and faculty of the AHA/PLF “Improving Care for Hospitalized Adults with Substance Use Disorder” webinar have indicated no relevant financial relationships to disclose in regard to the content of this presentation.

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical education through the joint providership of the American Board of Quality Assurance and Utilization Review Physicians, Inc. (ABQAURP) and American Hospital Association – Physician Leadership Forum. ABQAURP is accredited by the ACCME to provide continuing medical education for physicians.

The American Board of Quality Assurance and Utilization Review Physicians, Inc. designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ABQAURP is an approved to provide continuing education for nurses. This activity is designated for 1.0 Nursing Contact Hours through the Florida Board of Nursing, Provider # 50-94.
Disclosures

• I have no conflicts of interest to disclose
Our interprofessional team
Objectives

1. Understand needs of hospitalized adults with substance use disorder (SUD)
2. Recognize hospitalization as a reachable moment to initiate addiction care
3. Learn about one academic medical center's experience developing and implementing a hospital-based addiction medicine team
4. Understand how a team-based approach can improve care for adults with SUD
Admitted to area hospital with endocarditis

Transferred to OHSU with abscess surrounding aortic root and lungs

Readmitted with chest wall pain

Septic shock to ICU

• Discharge to skilled nursing with IV antibiotics
• Reports last drug use 2 months prior

• Heart surgery to repair aortic and mitral valves
• SW consult
  • Limited engagement
  • Encouraged to seek SUD treatment
• Discharged with #120 tabs of hydromorphone

• Urine drug screen ordered but not collected
• Pain control with plan to taper
• SW re-consulted; had not engaged in SUD treatment, grieving boyfriend death

• Blood pressure 90s → 50s
• Heart failure with infection around aortic valve
• PEA arrest x2
• Died with family at bedside

Despite extensive physical health care and hospital staff best effort, no SUD expertise in the hospital
Nation facing a crisis

• 2015: Overdoses exceeded annual deaths at peak of HIV/AIDS epidemic in 1995
• 2016: Overdoses killed more Americans than entire Vietnam war

NY Times 1/19/16
Vox 7/7/17
A chronic disease of the brain

• Outdated view:
  – moral failing, bad choice

• Modern, evidence-based view:
  – Genetic and Environmental factors predispose to chronic drug use
  – Leads to structural and functional disruption of motivation, reward, inhibitory control centers
  – Turns drug use into an automatic, compulsive behavior (addiction)

Hall, Lancet 2015
Koob, Neuropsychopharm 2001
A Disease of the Brain

Decreased Brain Metabolism

Control

Cocaine Addicted

OFC

High

Low

Courtesy of Meg Devoe, Andy Lawton

Volkow et al. Neuroimage 2013
A Disease of the Brain

Decreased Brain Metabolism

Control

Cocaine Addicted

Decreased Heart Metabolism

Healthy Heart

Diseased Heart

Courtesy of Meg Devoe, Andy Lawton

Volkow et al. Neuroimage 2013
Overdoses increasing

Overdose Deaths Involving Opioids, United States, 2000-2015

- Any Opioid
- Commonly Prescribed Opioids (Natural & Semi-Synthetic Opioids and Methadone)
- Heroin
- Other Synthetic Opioids (e.g., fentanyl, tramadol)


CDC 2016
Dowell, JAMA 2017
Critical treatment gap nationwide

Number of people with OUD
Gap: 914,000 individuals (2012)

combined methadone and buprenorphine treatment capacity

Jones, AJPH 2016
64% cumulative increase in opioid-related hospitalizations across US

AHRQ 2016
SUD drives skyrocketing costs

- SUD drives high rates of hospitalizations, readmission, long LOS
- $15 billion in US inpatient hospital charges related to opioid use disorder in 2012
- Many people not engaged in SUD treatment

AHRQ HCUP national sample 2009
Ronan, Health Affairs 2016
Yet health system slow to respond...

- Hospitalization often addresses the acute medical illness but not the underlying cause - the SUD
  - Leads to significant waste and poor outcomes

- Effective treatments exist but are under-utilized
Mixed-methods Needs Assessment
185 hospitalized adults (09/14-04/15)

• Hospitalization is a reachable moment
  – 57% of high risk alcohol users; 68% of high risk drug users reported wanting to cut back or quit
  – Many wanted medication for addiction treatment (MAT) to start in hospital

• Gap-time to community SUD treatment

• Patients valued treatment choice, providers that understand SUD

Velez, JGIM 2016
England, JHM 2017
“Most of us that do it can’t stand it. I hate the stuff. It is wretched. It’s like damned if you do, damned if you don’t...when I do it I don’t even feel good anymore, like it takes so much just to be okay, to be normal. It’s like when I use I just feel normal...so they don’t understand that.”

Velez, JGIM 2016
Prolonged inpatient length of stay

Expected LOS vs Actual LOS

Diagnosis:
- Both (Orange circles)
- Osteomyelitis (Orange triangles)
- Endocarditis (Blue squares)
- Neither (Black dots)

England, JHM 2017
Costly readmissions

- Among 165 patients, 137 readmissions over mean observation of 4.5 months
- Mean charge per readmission $31,157
  - $55,493 for endocarditis readmissions
  - $68,774 for osteomyelitis readmissions

England, JHM 2017
IMPACT: Improving Addiction Care Team

**Needs**
- Hospitalization is reachable moment
- OHSU lacked expertise to assess, engage or initiate treatment for SUD
- No usual pathways to outpatient addiction care
- Long community wait times
- Long-term IV ABX pts (endocarditis/ osteo) had long LOS
- Residential SUD treatment not equipped for medically complex patients (IVs)

**Intervention**
- Inpatient consult service: physician, SW, peer recovery mentors
- Rapid-access pathways to community SUD treatment with liaisons
- Integrate IV antibiotics into residential treatment (MERT)

**Implementation**
Launched summer 2015
<table>
<thead>
<tr>
<th>Patient Demographics</th>
<th>July 2015 - August 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total IMPACT patients seen</td>
<td>602</td>
</tr>
<tr>
<td>Mean age (years)</td>
<td>49.5 years</td>
</tr>
<tr>
<td>Male gender</td>
<td>402 (60%)</td>
</tr>
<tr>
<td>Portland Metro residence</td>
<td>326 (54%)</td>
</tr>
<tr>
<td>Homeless</td>
<td>274 (46%)</td>
</tr>
<tr>
<td>Substance use</td>
<td></td>
</tr>
<tr>
<td>Opioid Use Disorder</td>
<td>279 (46%)</td>
</tr>
<tr>
<td>Alcohol Use Disorder</td>
<td>196 (33%)</td>
</tr>
<tr>
<td>Methamphetamine Use Disorder</td>
<td>69 (11%)</td>
</tr>
</tbody>
</table>
# IMPACT Activities

<table>
<thead>
<tr>
<th>IMPACT activities</th>
<th>July 2015 - August 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique patients seen by IMPACT (n)</td>
<td>602</td>
</tr>
<tr>
<td>Patient engagement</td>
<td>532 (88%)</td>
</tr>
<tr>
<td>Average physician encounters/ patient (range)</td>
<td>3.7 (0-33)</td>
</tr>
<tr>
<td>Average SW encounters/ patient (range)</td>
<td>5 (0-31)</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Linked with community SUD treatment</td>
<td>358 (67%)</td>
</tr>
<tr>
<td>Medication Assisted Treatment</td>
<td>388 (64%)</td>
</tr>
<tr>
<td>Reduce controlled substances</td>
<td>96 (18%)</td>
</tr>
<tr>
<td>Identify unrecognized mental illness</td>
<td>49 (8%)</td>
</tr>
<tr>
<td>Criminal justice/ parole officer communication</td>
<td>23 (4%)</td>
</tr>
</tbody>
</table>
Treatment Linkages to CODA

**Referred**
N=167

**Enrolled**
N=78 (46%)

- Alternate treatment
- Barriers: Insurance, criminal justice, geographic
- Patient declined any linkage
- Left AMA
- Waitlisted for CODA services

**Sustained engagement***
30 days: 51 (71%)
60 days: 46 (59%)
90 days: 34 (44%)
# Medically Enhanced Residential Residential

<table>
<thead>
<tr>
<th>Medically Enhanced Residential Treatment</th>
<th>02/16 - 08/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPACT patients needing ≥2 weeks IV ABX</td>
<td>45</td>
</tr>
<tr>
<td>Discharged to MERT</td>
<td>7 (16%)</td>
</tr>
<tr>
<td>Completed recommended medical treatment</td>
<td>3/7 (43%)</td>
</tr>
<tr>
<td>Hospital days saved</td>
<td>101</td>
</tr>
</tbody>
</table>

- Low recruitment
  - Medical complexity (SNF, multiple antibiotic infusions/d)
  - Ambivalence towards residential treatment
    - Desire to prioritize medical care, fear of inadequate pain management, residential ‘blackout period’
- Low retention: High rates of AMA from MERT

Ended MERT after 6 month pilot.
IMPACT savings

• 460 hospital days in the last year (~$1.2M savings)

• Improved patient and provider experience

• Reduced nonproductive staff time
“IMPACT elevated the consciousness of providers and nurses... that substance use disorders are brain disorders and not bad behavior.”

- Hospitalist

“I think you feel more empowered when you’ve got the right medication... the knowledge, and you feel like you have the resources. You actually feel like you’re making a difference.”

- Ward Nurse
How can hospitals apply IMPACT experience and lessons learned?
Key IMPACT Tools

1. Medications for addiction treatment (MAT)
2. Pathways to treatment post-hospital
3. Interprofessional team, including peers
4. Patient-centered safety plans
Consult Case

• 26 yo man with hx of depression, back pain, and heroin use admitted with a femur fracture after motor vehicle accident.
• Underwent ORIF earlier in the day.
• IMPACT consulted for severe pain and addiction.
History

- Started using prescription opioids at age 17, transitioned to heroin 2 years ago. Initially used intermittently, now uses total of 1 gram IV heroin daily to avoid withdrawal. No history of overdose.
- Quit job 1 week ago
- Heroin “gives energy,” helps with pain. Makes him depressed, interfering with family/friends/work
- Occasional benzos, rare meth. Smokes ½ pack cigarettes/day.
Exam

Currently on a hydromorphone PCA and appears miserable.

- BP 130/67, HR 106, T 37, RR 20
- A&Ox3, uncomfortable, intermittently tearful
- Facial abrasions and bruising
- Pupils slightly dilated, diaphoretic
- Track marks visible in antecubital fossae
Tool #1

Medications for addiction treatment (MAT)
“You would see this pattern, especially in the IV drug-using population: left AMA, left AMA, left AMA... 9 times out of 10, nobody was dealing with the fact that they were gonna go into withdrawal”

– Hospitalist
Managing opioid withdrawal

- Methadone
- Buprenorphine
- Adjunctive medications
  - Clonidine, hydroxyzine, NSAIDs, acetaminophen
Medication for Addiction (MAT) saves lives

- Buprenorphine cuts mortality (overdose and all-cause) by about 1/2
- Methadone cuts mortality by about 2/3

Sordo, BMJ 2017
Common MAT barriers

- **Misconception that methadone is illegal in hospital**
  - FALSE! But don’t prescribe at DC
  - Update/ write hospital policies
  - Need providers, pharmacy, nursing education

- **Lack of providers who know how to prescribe**
  - Get buprenorphine waived (MD/ NP/ PAs)
  - Identify interprofessional staff champions

- **No treatment pathways post-discharge**
  - Build them
Our patient, continued

• Started methadone 20 mg liquid and within hours felt a 'huge difference.'
  – Pain better controlled, mood much improved
  – Transitioned from hydromorphone PCA to liquid
  – As we increased methadone titrated down hydromorphone
Tool #2

Post-hospital treatment pathways
“This isn’t just like we’re being nicer... this relationship with [community SUD treatment] is ingenious and it’s like an answer to prayers.”

- Hospitalist

“Starting them on [methadone or suboxone] and then making the next step in the outpatient world happen has been huge. That transition is so critical. That’s probably the biggest impact.”

- Hospitalist
Post-hospital treatment pathways

1. Identify key stakeholders in your community
   – E.g. opioid treatment programs, office-based buprenorphine providers, housing agencies, skilled nursing facilities, payers, others

2. Convene leaders to understand gaps and opportunities across settings

3. Identify pathways and how to support them (operations, finances)
Tool #3

Interprofessional team, including peers with lived experience in recovery
IMPACT inpatient team roles

**Physician/ NP/ PA**
- Diagnose SUD (DSM)
- Identify & treat withdrawal, initiate MAT
- Assess medications, MH, pain
- Safe opioid prescribing, naloxone

**Social Workers**
- Substance use assessment (ASAM)
- Safety plan and relapse prevention
- Behavioral treatment (psychoeducation, MI)
- Care coordination (healthcare, DCJ, other)

**Peers**
- Patient engagement and empowerment
- Health system & social service navigation
- Social support
- Bridge across hospital and community
Having an addiction team, including doctors in “a white coat” “completely reframes addiction as a medical condition that actually has a treatment.”

- Hospital social worker
Patients value peers

“When you tell me what to do, I’m a mule. I dig my hooves in and I’m like, uh-uh [shaking head], I make my own decisions. But if I have somebody to talk to that could understand where I’m coming from, yeah, I could see that helping people.”

Velez, JGIM 2016
Addiction Peers in the hospital

Lived experience in recovery
- Huge value-added in engaging patients
- Inform program development and QI
- Rich and different voice

Hiring can be complicated
- Many have criminal record
- Meeting with human resources, legal, risk management before hiring can be helpful

Supervision is important
- OHSU Contracts with community peer agency
- Provide supervision within OHSU social work and have community supervisor
- Strong relationship with MD champion key
Our patient, continued

- Discharged on HD 5 with clear opioid taper plan and plans to follow up in primary care and at methadone clinic

- Walked with walker into clinic 2 weeks later, engaged in SUD treatment on methadone, off hydromorphone.

- Working with IMPACT peer who recently accompanied him to enroll in fall college classes
A word about stigma
Substance Use Disorder

Diagnosis
Addict

Harmful

Label
Changing the Language of Addiction

Words matter. In the scientific arena, the routine vocabulary of health care professionals and researchers frames illness and shapes medical judgments. When these terms then enter the public arena, they convey social norms and attitudes. As part of their professional duty, clinicians strive to use language that accurately reflects science, promotes evidence-based treatment, and demonstrates respect for patients.

However, history has also demonstrated how language can cloud understanding and perpetuate societal bias. For example, in the past, people with mental illness were derided as “lunatics” and segregated to “insane asylums.” In the early days of human immunodeficiency virus, patients were labeled as having “gay-related immune deficiency,” with public discourse focused on the disease’s behavior and lifestyle implications. Stigma isolates people, discourages people from coming forward for treatment, and leads some clinicians, knowingly or unknowingly, to resist delivering evidence-based treatment services. The 2014 National Survey on Drug Use and Health estimates that of the 22.5 million people (aged ≥12 years) who need specialty treatment for a problem with alcohol or illicit drug use, only an estimated 2.6 million received treatment in the past year; of the 7.9 million specifically needing specialty treatment for illicit drug use, only 1.6 million received treatment. The survey noted that reasons for not seeking treatment included fears that receiving it would adversely affect the individual’s job or the opinion of neighbors or other community members. Lack of insurance coverage, cost concerns, and perceived stigma were also major barriers to entering treatment. Other challenges included locating services and adjusting to a new living situation and lifestyle.

JAMA October 2016
The stigma of drug misuse keeps people from seeking treatment. Words like “junkie,” “addict” and “druggie” can hurt, damaging self-image and standing in the way of recovery.
“I don’t know if it gives them a voice or allows us to hear them better... but something’s happening with communication.”

- Hospitalist
Tool #4: Patient-centered safety plans
Patient-centered safety plans

• Ward nurses leading the process

• **Initial conversation**: Framed as routine conversation to assure patient safety and staff safety
  – Discuss any concerns for active use
  – Discourage visitors who might bring drugs or paraphernalia
  – May have a random room search or random UAs as part of hospital care

• **If concern for active use**
  – ‘Level 2’ safety plan; acknowledges that the above things will happen more frequently and patients may have limited time off the floor.
Harm reduction

“A set of practical strategies and ideas aimed at reducing negative consequences associated with drug use.”

Ongoing questions what it means to practice harm reduction in the hospital.
Summary and resources
Summary of core elements

• Leadership buy-in and support
• Providers that understand addiction
• Systems and policies that support MAT
• Strong community partnerships including linkages to post-hospital SUD treatment
Some key process steps

• Identify local needs and drivers for change
  – Scope of the problem (in your hospital, community, region)
• Identify key stakeholders and potential champions
• Convene partners across disciplines and settings
• Map needs to intervention components
• Identify metrics, timeline, communication strategy
• Continuous quality improvement with continued engagement and involvement across stakeholders
AHA Opioid Toolkit

Topics:

1. Clinician education on prescribing practices
2. Non-opioid pain management
3. Addressing stigma
4. Treatment options for opioid use disorders
5. Patient, family and caregiver education
6. Transitions of care
7. Safeguarding against diversion
8. Collaborating with communities

http://www.aha.org/opioidtoolkit
Feeling Good!

on the road to

Recovery From Addiction!!

And on the road to surgery to save my life!! Then start my new life as an awesome dad, and person!!!

THANKS TO ALL that helped me through this HARD process!!!
Thank you!

englandh@ohsu.edu (email)
@honoraenglander (twitter)