Hospitals’ Role in Addressing the Opioid Crisis
Webinar 5: Buprenorphine in the Emergency Department

November 14, 2017
Agenda

• Hospital Based Buprenorphine Initiatives
  ▪ Yngvild Olsen, M.D., Medical Consultant, Behavioral Health Administration

• Hospital-Based Buprenorphine Induction in Maryland Hospitals
  ▪ Marla Oros, RN, MS, President, Mosaic Group

• Bon Secours Hospital Experience
  ▪ Reginald Brown, M.D., Emergency Department Director, Bon Secours Hospital
Hospital Based Buprenorphine Initiatives

Dr. Yngvild Olsen
Medical Consultant
Behavioral Health Administration (BHA)
November 14, 2017
Four Statewide Goals for Opioid Epidemic

Overarching goal is to reduce the rate of overdose deaths among Marylanders

Goal 1: Prevent new cases of opioid misuse and addiction

Goal 2: Improve early identification of and intervention with opioid addiction

Goal 3: Expand access to services that support recovery and prevent death and disease progression

Goal 4: Enhance data collection, sharing, and analysis to improve understanding of and response to the opioid epidemic
Goal 3: Expand access to services that support recovery and prevent death and disease progression

Priority 3.1 Improve access to and quality of evidence-based opioid addiction treatment in the community.

Key Strategy: BHA Buprenorphine Expansion Related Projects

- MACS (Maryland Addiction Consultation Service)
- PCSS-MAT Implementation Program (PCSS-MIP)
- Buprenorphine prescribing via telehealth
- Outreach to PAs and NPs
- Jurisdictional Buprenorphine Initiatives
- ED Buprenorphine Induction Project (Hospital Based Buprenorphine Initiative, HBBI)
Overall Buprenorphine Expansion Goals

1) Increase access to and knowledge regarding buprenorphine, including changes to DATA 2000 law.

2) Promote integration of office based buprenorphine services with public behavioral health treatment and recovery system at local level.

3) Encourage Opioid Treatment Programs to provide buprenorphine.

4) Expand use of buprenorphine in other clinical settings including emergency rooms and outpatient mental health clinics.

5) Increase integration of buprenorphine, overdose education strategies, use of telemedicine, and naloxone distribution for high risk patients in multiple clinical settings in rural and underserved areas.
Hospital Based Buprenorphine Induction (HBBI) Services

- Collaboration between multiple partners:
  - BHA
  - The Mosaic group
  - University of Maryland Medical Systems (UMMS)
  - Open Society Foundation
  - SBIRT Emergency Department (ED) physicians

- Initiates buprenorphine in emergency departments for survivors of opioid overdose, and other patients with severe opioid use disorder

- Includes a growing list of hospital EDs:
  - Bon Secours
  - MedStar Franklin Square
  - MedStar Harbor
  - Mercy
National Picture: Rise in Opioid-Related Deaths

Overdose Deaths Involving Opioids, United States, 2000-2015


https://www.cdc.gov/drugoverdose/data/analysis.html
Maryland Picture: Rise in Opioid-Related Deaths

Figure 2. Number of Opioid-Related Deaths Occurring in Maryland from January through June of Each Year.*

*2017 counts are preliminary.

National Picture: Rise in Opioid-Related Emergency Department Visits

https://www.hcup-us.ahrq.gov/faststats/OpioidUse
Maryland Picture: Rise in Opioid-Related Emergency Department Visits

Maryland: Opioid-Related Hospital Use
Rate of Emergency Department (ED) Visits

Source: Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP), State Emergency Department Databases (SEDD) 2008-2015 (all available data as of 10/16/2017). Emergency department visits exclude those for patients admitted to the hospital.

https://www.hcup-us.ahrq.gov/faststats/OpioidUse
HBBI: Evidence-Based Practice

- **Observational study: Berg et al. Drug Alcoh Depend 2007**
  - 158 patients seen in Johns Hopkins adult ED with opioid withdrawal
    - 56% were given dose of injectable buprenorphine +/- symptomatic medications
    - 26% received only symptomatic medications
    - 18% received no medications
  - 8% receiving buprenorphine returned to ED w/in 30 days for drug related visit vs 17% of those receiving symptomatic treatment
  - No incidents of precipitated withdrawal or other adverse consequences

- **RCT: D’Onofrio et al. JAMA 2015**
  - 329 adults screening positive for opioid use disorder (OUD) in adult ED at Yale
    - 9% with opioid overdose
    - 34% seeking treatment for OUD
  - Randomized to one of 3 arms:
    - Referral to addiction treatment
    - Brief intervention and referral to addiction treatment
    - Buprenorphine dose and referral to primary care within 72 hours for ongoing buprenorphine
  - Primary outcome was engagement in addiction treatment at 30 days
RCT: D’Onofrio et al. JAMA 2015 – RESULTS

- Significantly higher proportion of patients receiving buprenorphine in ED were engaged in addiction treatment at 30 days
  - 78% in buprenorphine arm
  - 37% in referral arm
  - 45% in brief intervention and referral arm

- Greater reductions in self-reported illicit opioid use among buprenorphine group
  - From mean 5.4 days per week to 0.9 days in buprenorphine arm
  - From mean 5.4 days per week to 2.3 days in referral arm
  - From mean 5.6 days per week to 2.4 days in brief intervention and referral arm
The Addiction Treatment Imperative

- Reduce mortality
- Reduce morbidity
- Improve quality of life

Help people manage their disease so they can manage their recovery
FDA-Approved Medication Types for Opioid Addiction Treatment

- **Full agonist**: methadone
  - mu receptor site

- **Partial agonist**: buprenorphine
  - mu receptor site

- **Antagonist**: naltrexone
  - mu receptor site
## Opioid Use Disorder Diagnostic Criteria, DSM-5

<table>
<thead>
<tr>
<th>More use than intended</th>
<th>Excessive time spent in acquisition</th>
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</thead>
<tbody>
<tr>
<td>Unsuccessful efforts to cut down</td>
<td>Craving for the substance</td>
</tr>
<tr>
<td>Activities given up because of use</td>
<td>Continued use despite consistent social or interpersonal problems</td>
</tr>
<tr>
<td>Failure to fulfill major role obligations</td>
<td>Tolerance*</td>
</tr>
<tr>
<td>Use despite negative effects</td>
<td>Withdrawal*</td>
</tr>
<tr>
<td>Recurrent use in hazardous situations</td>
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</table>

**Severity measured by number of symptoms;** 2-3 mild, 4-6 moderate, 7-11 severe

* These do not apply if medication is prescribed and no other diagnostic criteria are met
Benefits Of Treatment That Includes Medication

- Reduces risk of HIV infection
- Reduces risk of infection with hepatitis C and B
- Increases rates of employment among patients as a group
- Decreases crime
- Increases length of life
- Reduces risk of overdose
Opioid Overdose Mortality Rates Before, During, and After Treatment with Methadone (per 100 person-years)

Clausen et al, Drug and Alc Depend 2008
Reduction in Mortality on Population Level

Agonist Medications Decrease Heroin OD

**Agonist Treatment Reduced Heroin OD Deaths**
Baltimore, Maryland, 1995-2009

**Buprenorphine Reduced Heroin OD**
France 1995-1999 (75% reduction)

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Slide courtesy of Nora Volkow, Director of NIDA, ASAM plenary, 2016
Hospital-Based Buprenorphine Induction in Maryland Hospitals
The Comprehensive Hospital Substance Use Response Program (CHSURP)

• Mosaic Group and BHA recognize the need for a more powerful response for hospital patients and introduce: CHSURP

• CHSURP hospitals include 9/10 current hospital programs.

• CHSURP includes:
  • The hospital SBIRT model.
  • The new Opioid Overdose Survivors Outreach Program
  • The Buprenorphine in the ED program
What is SBIRT?

Screening

Brief Intervention

Referral to Treatment
Why HBBI in SBIRT Hospitals

• MAT is the evidence-based treatment for OUD
• Patients are identified through SBIRT with OUD and interested in treatment
• **PROBLEM:** Long wait times to first appointment for MAT
• **RESULT:** Discharge patient with appointment, patient resumes opioid use and does not show up for treatment

**PATIENT IS LIKELY TO RETURN TO EMERGENCY DEPARTMENT**
HBBI Process

1. Patient is screened using SBIRT screening and identified as having OUD and motivated for treatment

2. Medical team approves patient for HBBI protocol and assesses if patient is clinically able to receive buprenorphine dose in ED
   - Patient receives initial dose of buprenorphine

3. Patient is Fast Tracked to MAT provider in community for next day continued buprenorphine induction
Buprenorphine “Fast Track” Program

1. Patient comes to ED with Opioid Use disorder
2. PRC discusses Bup Treatment
3. PRC alerts physicians that patient is a good candidate
4. Physician meets with patients to determine if good candidate
5. Patient receives first dose of bup
6. Patient seen at treatment center within 24 hours
Buprenorphine Waiver Not Necessary

• DEA “Three Day Rule”
  • Exception to DATA 2000 Waiver
  • Provides for practitioner flexibility in emergency situations to treat patients undergoing opioid withdrawal
  • 72-hour exception allows for provider to dispense and administer up to three days of medication to treat acute withdrawal symptoms while arranging for treatment
  • EDs generally do not allow patients to leave with medications, thus one dose is provided in HBBI under this provision
Fast Track Treatment Programs

- Treatment programs that offer MAT using buprenorphine:
  - OTP
  - IOP/OP
  - Primary Care
  - Psychiatrist
- Partner with HBBI hospital to accept patient next day
- Receive discharge summary from hospital at any time of day
- Use discharge summary clinical information to obtain order for Day 2 buprenorphine induction
- Enroll patient in other services as indicated
Current Hospitals

• Mercy Hospital
• Bon Secours Hospital
• MedStar Franklin Square
• MedStar Harbor Hospital
• UMMS
• University of Maryland Midtown
• Johns Hopkins Bayview
Outcomes to Date

- 189 referred to Protocol
- 78% patients received initial induction
- 53% patients kept next day appointment
- 41% retained in treatment at 30 days
The Problem

### Top 75 Diagnoses in Emergency Departments

**BON SECOURS HOSPITAL**

6/1/2017 to 6/30/2017

Report Generated on 7/1/2017

<table>
<thead>
<tr>
<th>Dx Name and ICD-10 Code</th>
<th>Code Set</th>
<th>Count</th>
<th>% of Total</th>
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<tbody>
<tr>
<td>Poisoning by heroin, accidental (unintentional), initial encounter - T40.1X1A</td>
<td>ICD-10-CM</td>
<td>101</td>
<td>5.34%</td>
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<td>Chest pain, unspecified - R07.9</td>
<td>ICD-10-CM</td>
<td>26</td>
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<td>Alcohol abuse with intoxication, uncomplicated - F10.120</td>
<td>ICD-10-CM</td>
<td>22</td>
<td>1.16%</td>
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<td>Unspecified asthma with (acute) exacerbation - J45.901</td>
<td>ICD-10-CM</td>
<td>21</td>
<td>1.11%</td>
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<tr>
<td>Acute vaginitis - N76.0</td>
<td>ICD-10-CM</td>
<td>19</td>
<td>1.01%</td>
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<tr>
<td>Chronic obstructive pulmonary disease with (acute) exacerbation - J44.1</td>
<td>ICD-10-CM</td>
<td>19</td>
<td>1.01%</td>
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<td>Epilepsy, unspecified, not intractable, without status epilepticus - G40.900</td>
<td>ICD-10-CM</td>
<td>19</td>
<td>1.01%</td>
</tr>
<tr>
<td>Headache - R51</td>
<td>ICD-10-CM</td>
<td>19</td>
<td>1.01%</td>
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<td>Strain of muscle, fascia and tendon of lower back, initial encounter - S39.012A</td>
<td>ICD-10-CM</td>
<td>19</td>
<td>1.01%</td>
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<tr>
<td>Acute pharyngitis, unspecified - J02.9</td>
<td>ICD-10-CM</td>
<td>18</td>
<td>0.95%</td>
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<tr>
<td>Alcohol abuse with intoxication, unspecified - F10.129</td>
<td>ICD-10-CM</td>
<td>18</td>
<td>0.95%</td>
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<tr>
<td>Dental caries, unspecified - K02.9</td>
<td>ICD-10-CM</td>
<td>18</td>
<td>0.95%</td>
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<tr>
<td>Other chest pain - R07.89</td>
<td>ICD-10-CM</td>
<td>17</td>
<td>0.90%</td>
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<td>Lower abdominal pain, unspecified - R10.30</td>
<td>ICD-10-CM</td>
<td>16</td>
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<td>Acute upper respiratory infection, unspecified - J06.9</td>
<td>ICD-10-CM</td>
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<td>Alcohol dependence with intoxication, uncomplicated - F10.220</td>
<td>ICD-10-CM</td>
<td>14</td>
<td>0.74%</td>
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<td>Major depressive disorder, single episode, unspecified - F32.9</td>
<td>ICD-10-CM</td>
<td>14</td>
<td>0.74%</td>
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<tr>
<td>Syncope and collapse - R55</td>
<td>ICD-10-CM</td>
<td>14</td>
<td>0.74%</td>
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Bon Secours Hospital Experience

• First hospital to integrate SBIRT in ED in 2012
• High percentage of patients screening positive for substances - 40%
• High volume of OUD
• OUD patients are high utilizers of ED
• Coaches refer to MAT, but had delays in getting first appointment
• Initiated HBBI one year ago
Triage Screen
Clinical Protocol

Patient screens positive for OUD and referred to PRC. PRC assesses motivation for treatment and if motivated refers to clinical team.

COWS administered by nursing and MD assesses patient for exclusion criteria (Long acting opioid pain medication or pregnant).
COWS of 8 or higher triggers order for buprenorphine 8 mg.
Nurse administers initial dose.

PRC arranges next day appointment at Fast Track treatment program.
Patient provided discharge summary with diagnosis of OUD and indication of dose administered.
PRC follows up to determine linkage to treatment and needed support.
Lessons Learned

• Very helpful for patients – alleviates patient discomfort and responsive to treatment needs

• Many patients do not meet COWS requirements - not in significant withdrawal

• Patients and Coaches need education on MAT as the evidence-based treatment option for OUD
  • Patient education materials developed and helpful
  • Focused training for coaches necessary
  • Scripts for coaches to present to patients developed and helpful

• Medical team involvement in identifying patients helpful to support volume growth

• Fast Track treatment site partnership essential
Schedule of Webinars

June 28  New Opioid-Related Requirements
July 11  Naloxone Prescribing and Dispensing
September 12  Alcohol and Drug Use Screening
October 18  Overdose Survivors Outreach Project
November 14  Buprenorphine in the Emergency Department

Materials will be posted at: http://www.mhaonline.org/resources/opioid-resources-for-hospitals

All webinars are 8:30 – 9:30 a.m.