Creation of the Brigham Health Bridge Clinic: Immediate Access to SUD treatment

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Associate Director, Medical Management & Population Health Management
Brigham and Women’s Hospital; Brigham and Women’s Physicians Organization
Disclosures

• I have no financial disclosures
Objectives

• Describe the development of a comprehensive hospital program to address the opioid crisis.
• Highlight the development and creation of a hospital-based program to provide immediate access to substance use disorder treatment.

Figure 2. Opioid-Related Deaths, All Intents
Massachusetts Residents: 2000 - 2017

Data Brief: Opioid-related overdose deaths among Massachusetts residents; MA DPH; Feb 2018
Rate of MA Opioid-Related Overdose Deaths decreased for the 1st time in 7 years

Figure 3. Rate of Opioid\textsuperscript{1}-Related Deaths, All Intents
Massachusetts Residents: 2000-2017

Data Brief: Opioid-related overdose deaths among Massachusetts residents; MA DPH; Feb 2018
Fentanyl is found in the highest % of overdose deaths
Confirmed Opioid-Related Death Rates, All Intents, by Race and Year

Age-adjusted Rates per 100,000

- White non-Hispanic: 23.7 in 2014, 29.3 in 2015, 35.9 in 2016

Data Brief: Opioid-related overdose deaths among Massachusetts residents; MA DPH; Feb 2018
Pressure to DO Something...

- Patients
- Clinicians
- Community
- Government
BCORE: Brigham Comprehensive Opioid Response and Education
Two Simultaneous Approaches

**Bottom Up: Task Forces**
- Prescribing TF
- Addiction TF
- Education TF
- Existing programs (EAP, Addiction Consult service)

**Top Down: Exec Support**
- CMO, CNO
- Chief Quality & Safety Officer
- Senior Vice President, Operations and Strategy
- Department Chairs
- Director of Pharmacy
- Director of Graduate Medical Education
- Chief Information Officer
BCORE Mission Statement

By the end of 2016, develop a comprehensive program that measurably demonstrates implementation of Brigham-wide guidelines for opioid prevention, opioid prescribing, managing chronic pain, and managing opioid use disorder through technology, data, outreach, clinical support, and training.
Governance & Multidisciplinary Coordination

Executive Committee for BCORE Program
Scott Weiner, Nesson Fellow (Chair)
Shelly Anderson, BH VP
Stan Ashley, BWH CMO
Craig Bunnell, DFCI CMO
John Co, Partners GME
Jessica Dudley, BWPO CMO
Peggy Duggan, BWFH CMO
John Fanikos, BWH Pharmacy

Chris Gilligan, BWH Pain Medicine
Richard Gitomer, Director, BWH Primary Care
Mike Healey, BWPO eCare Ambulatory CMIO
Allen Kachalia, BWHC CQO
Jessica Logsdon, BWHC PA Director
Wanda McClain BWHC VP Community Health
Maddy Pearson, BWH CNO
Jim Rathmell, Chair BWH Anesthesia
David Silbersweig, Chair BWH Psychiatry
Joji Suzuki, BH Addiction Psychiatrist

Clinical Consultant Program Manager
Christin Price

Task Force Coordinating Committee: Shelly Anderson, Alev Atalay, Mike Healey, Erika Pabo, Christin Price, Joji Suzuki, Scott Weiner

Prescribing Task Force
Chairs Alev Atalay, Ed Ross
Representation from: Addiction, Oncology, Pain, Nursing, Pharmacy, Rheumatology, Hospitalists
Surgery, Ortho, Primary Care, EM, Pharmacy

Addiction Task Force
Chairs Erika Pabo, Joji Suzuki
Representation from: Addiction, Oncology, Pain, Pharmacy, Rheum, Hospitalists, Surgery, Ortho, Primary Care, EM, Pharmacy

Education Task Force
Chair: Darin Correll
Representation from: Addiction, Palliative Care, Orthopedics, ENT, Primary Care, Emergency Medicine, Nursing, Physician Assistants, Hospitalists

Implementation Responsibilities:
- Data Capture
- Training
- Benchmarks, Reporting & Performance Improvement
- Technology Development
- Outreach Activities
- Model Development (capacity, roles, responsibilities)

Advisory Groups:
- PFAC
- Social Work
- Information technology
- Partners Health System Opioid Task Force
- Employee engagement – EAP
- RADEO Project (Hospitalists)
- Nursing

BRIGHAM HEALTH
BRIGHAM AND WOMEN’S HOSPITAL
HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL
Launch: Summer 2016

Executive Summary: Use of Opioid Therapy for Acute, Non-malignant Pain at Brigham and Women’s Hospital

Purpose/Definition: The purpose of this document is to support BWH healthcare providers in delivering compassionate, evidence-based, responsible care while improving the quality and safety of care that we deliver to our patients experiencing acute pain. ‘Acute pain’ is defined as pain provoked by a specific disease or injury, or subsequent to surgery, and is self-limited, lasting no longer than 90 days.

Pain Assessment and Indications: In acute situations, consider opioid prescriptions based on the degree of tissue disruption, a strong consideration of alternatives, specialty specific published guidelines, the impact of pain upon function, and the risk/benefit ratio given the provider’s knowledge of the individual patient.

- Opioids may only be prescribed after a clinical examination, diagnosis, review of medication and medical/psychiatric history, consideration of alternatives as well as the risk to the individual patient of opioids, and review of data from the Massachusetts Prescription Awareness Tool (MassPAT).

Non-Opioid Alternatives to Pain Management: Opioids should be the last consideration for acute pain management. Do not prescribe without first considering non-opioid and non-pharmacological measures.

Risk Assessment: All patients should be screened for opioid misuse. Consider using a validated screening tool to determine whether it is appropriate to prescribe opioids based on diagnosis and risk.

- The recommended risk screening tool at BWH is the SOAPP-R. You may also use other validated tools such as Opioid Risk Tool (ORT).
**BCORE Metrics**

**Overall Goal:** Reduce fatal and non-fatal overdoses for Brigham pts

<table>
<thead>
<tr>
<th>State Law Metrics</th>
<th>Opioid Use Disorder Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain treatment agreements for patients taking opioids &gt;90 days</td>
<td># pts offered SUD evaluation within 24 hrs of OD in the ED and Naloxone Rx at discharge</td>
</tr>
<tr>
<td>Utilization of a screening tool for risk assessment</td>
<td>Increase # of patients receiving medication-assisted substance use treatment (MAT)</td>
</tr>
<tr>
<td>Review of state prescription drug monitoring program</td>
<td>Increase number of providers waivered to prescribe MAT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safe Prescribing Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concurrent naloxone for patients on &gt;50 MME per day</td>
</tr>
</tbody>
</table>
Quarterly Opioid Grand Rounds
Drug Takeback

**Medication Take Back Day**

**Date:** Friday, January 19th, 2018  
**Time:** 11am to 5pm  
**Location:** Table and Medication Bin by the Cafeteria

**CLEAN OUT YOUR MEDICINE CABINETS!**

Bring your unused or expired prescription medications for safe disposal

Giveaways for 1st 100 people  
Anonymous and Free!

**Items Accepted:**
- Tablets/Capsules (not just pain medication)
- Cough medicine
- Creams/salves
- Any other medication (not containing needles)

**Items NOT Accepted:**
- Medical Equipment
- Syringes/needles

Organized and supported by Partners Employee Assistance Program (EAP), Pharmacy, and B-CORE
Increase Access to Naloxone

- Standing Order in hospital pharmacy for all pts and family members
- Bedside delivery to inpatients prior to discharge
- All security officers and primary care practices
Recovery Month: September 2017

Join the voices for recovery. Invest in health, home, purpose, and community.
RADEO: Inpatient Dashboard
Chronic Opioid Registry and Refill Module

Requested Medications

morphine (KADIAN) 10 mg 24 hr capsule
Take 1 capsule (10 mg total) by mouth daily. For palliative care related dyspnea. Partial fill permissible at request of patient
Disp: 30 capsule Refills: 0
Class: Print Start: 10/18/2017
Originally ordered: 1 year ago by

Opioids Protocol Failed

X Opioid Agreement identified on file in Media Management
X Urine, Saliva or Serum Toxicology performed within the last 12 months

REMINDER ANNOUNCEMENT: Clinician needs to check MassPat before refilling opioid medications

Active Medication List does not include Benzodiazepines

Patient has had appointment in the past 4 months or appointment in the next 30 days

Protocol Details
Brigham Health Bridge Clinic
Timeline

- **April 2017**
  - Visit MGH Bridge Clinic

- **May – June 2017**
  - Data analysis of Brigham patients
# Opioid-Related Overdoses Among Brigham Pts

## BWH

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17 (Thru July)</th>
<th>FY17(A)</th>
<th>FY16 - FY17(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heroin</strong></td>
<td>99</td>
<td>61</td>
<td>73</td>
<td>-26</td>
</tr>
<tr>
<td><strong>Opium</strong></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>-2</td>
</tr>
<tr>
<td><strong>Methadone</strong></td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td><strong>Other Opioids / Narcotics</strong></td>
<td>69</td>
<td>81</td>
<td>97</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total BWH</strong></td>
<td>176</td>
<td>150</td>
<td>180</td>
<td>4</td>
</tr>
</tbody>
</table>

% Expired: 4.5% (FY16) vs 6.7% (FY17)

## BWFH

<table>
<thead>
<tr>
<th></th>
<th>FY16</th>
<th>FY17 (Thru July)</th>
<th>FY17(A)</th>
<th>FY16 - FY17(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heroin</strong></td>
<td>141</td>
<td>80</td>
<td>96</td>
<td>-45</td>
</tr>
<tr>
<td><strong>Opium</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Methadone</strong></td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>-7</td>
</tr>
<tr>
<td><strong>Other Opioids / Narcotics</strong></td>
<td>30</td>
<td>21</td>
<td>25</td>
<td>-5</td>
</tr>
<tr>
<td><strong>Total BWFH</strong></td>
<td>178</td>
<td>101</td>
<td>121</td>
<td>-57</td>
</tr>
</tbody>
</table>

% Expired: 2.2% (FY16) vs 0.0% (FY17)
Infectious Complications of SUDs among Brigham Pts

- Data related to Opioid-related overdose, endocarditis, and osteomyelitis

<table>
<thead>
<tr>
<th>INPATIENT DISCHARGES:</th>
<th>FY16</th>
<th>FY17(A)</th>
<th>Δ #</th>
<th>Δ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocarditis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocarditis (with coded SUD)</td>
<td>42</td>
<td>56</td>
<td>14</td>
<td>33.3%</td>
</tr>
<tr>
<td>Total Endocarditis Population</td>
<td>152</td>
<td>133</td>
<td>-19</td>
<td>-12.5%</td>
</tr>
<tr>
<td>% with SUD out of Total</td>
<td>27.6%</td>
<td>42.1%</td>
<td>14.5%</td>
<td>52.4%</td>
</tr>
</tbody>
</table>

- This appeared to be a gross underestimate likely related to coding
  - Chart review of endocarditis cases revealed an additional 20% related to IDU had no coding for SUDs
SUDs not coded on discharges systematically

First Line of Discharge Summary:

- 35 year old woman with IVDU (current use, on methadone) transferred to BWH with c/f endocarditis, and 6 days of LE weakness c/w cauda equina.

<table>
<thead>
<tr>
<th>ICD10 Dx</th>
<th>Description</th>
<th>Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>G061</td>
<td>Intraspinal Abscess And Granuloma</td>
<td>1</td>
</tr>
<tr>
<td>N179</td>
<td>Acute Kidney Failure, Unspecified</td>
<td>2</td>
</tr>
<tr>
<td>I330</td>
<td>Acute And Subacute Infective Endocarditis</td>
<td>3</td>
</tr>
<tr>
<td>I2690</td>
<td>Septic Pulmonary Embolism Without Acute Cor Pulmonale</td>
<td>4</td>
</tr>
<tr>
<td>D696</td>
<td>Thrombocytopenia, Unspecified</td>
<td>5</td>
</tr>
<tr>
<td>E872</td>
<td>Acidosis</td>
<td>6</td>
</tr>
<tr>
<td>E871</td>
<td>Hypo-Osmolality And Hyponatremia</td>
<td>7</td>
</tr>
<tr>
<td>B1920</td>
<td>Unspecified Viral Hepatitis C Without Hepatic Coma</td>
<td>8</td>
</tr>
<tr>
<td>F17210</td>
<td>Nicotine Dependence, Cigarettes, Uncomplicated</td>
<td>9</td>
</tr>
<tr>
<td>D509</td>
<td>Iron Deficiency Anemia, Unspecified</td>
<td>10</td>
</tr>
<tr>
<td>E806</td>
<td>Other Disorders Of Bilirubin Metabolism</td>
<td>11</td>
</tr>
<tr>
<td>R5082</td>
<td>Postprocedural Fever</td>
<td>12</td>
</tr>
<tr>
<td>B9561</td>
<td>Methicillin Suscep Staph Infct Causing Dis Classd Elswhr</td>
<td>13</td>
</tr>
<tr>
<td>B9689</td>
<td>Oth Bacterial Agents As The Cause Of Diseases Classd Elswhr</td>
<td>14</td>
</tr>
<tr>
<td>G834</td>
<td>Cauda Equina Syndrome</td>
<td>15</td>
</tr>
<tr>
<td>R7881</td>
<td>Bacteremia</td>
<td>16</td>
</tr>
<tr>
<td>R32</td>
<td>Unspecified Urinary Incontinence</td>
<td>17</td>
</tr>
<tr>
<td>G9529</td>
<td>Other Cord Compression</td>
<td>18</td>
</tr>
<tr>
<td>M4316</td>
<td>Spondylolisthesis, Lumbar Region</td>
<td>19</td>
</tr>
<tr>
<td>E861</td>
<td>Hypovolemia</td>
<td>20</td>
</tr>
<tr>
<td>D599</td>
<td>Acquired Hemolytic Anemia, Unspecified</td>
<td>21</td>
</tr>
</tbody>
</table>
Timeline

• April 2017
  – Visit MGH Bridge Clinic

• May – June 2017
  – Data analysis of Brigham patients

• September 2017
  – Mass Health data on Medicaid patients to be attributed to our ACO
Background: Becoming a Medicaid ACO

<table>
<thead>
<tr>
<th>Condition</th>
<th>Top 5% Highest Cost Members</th>
<th>Next 10% Highest Cost Members</th>
<th>85% Lowest Cost Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug/Alcohol Abuse, (both Dependence and w/o Dependence)</td>
<td>41%</td>
<td>Drug/Alcohol Abuse, (both Dependence and w/o Dependence) 29%</td>
<td>Drug/Alcohol Abuse, (both Dependence and w/o Dependence) 8%</td>
</tr>
<tr>
<td>Major Depressive, Bipolar, Paranoid</td>
<td>36%</td>
<td>Major Depressive, Bipolar, Paranoid 29%</td>
<td>Hypertension 8%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>28%</td>
<td>Hypertension 20%</td>
<td>Asthma 9%</td>
</tr>
<tr>
<td>Diabetes (w/ Complications and w/o Complications)</td>
<td>20%</td>
<td>Asthma 17%</td>
<td>Major Depressive, Bipolar, Paranoid 6%</td>
</tr>
<tr>
<td>Asthma</td>
<td>17%</td>
<td>Diabetes (w/ Complications and w/o Complications) 13%</td>
<td>Depression 5%</td>
</tr>
<tr>
<td>Depression</td>
<td>12%</td>
<td>Depression 12%</td>
<td>Attention Deficit Disorder 5%</td>
</tr>
<tr>
<td>Chronic Obstructive Pulmonary Disease</td>
<td>11%</td>
<td>Attention Deficit Disorder 10%</td>
<td>Diabetes (w/ Complications and w/o Complications) 3%</td>
</tr>
<tr>
<td>Disorders of Vertebrae/Spinal Discs</td>
<td>11%</td>
<td>Disorders of Vertebrae/Spinal Discs 8%</td>
<td>Disorders of Vertebrae/Spinal Discs 2%</td>
</tr>
<tr>
<td>Attention Deficit Disorder</td>
<td>9%</td>
<td>Chronic Obstructive Pulmonary Disease 4%</td>
<td>Osteoporosis and Other Bone/Cartilage 2%</td>
</tr>
<tr>
<td>Osteoporosis and Other Bone/Cartilage</td>
<td>8%</td>
<td>Osteoporosis and Other Bone/Cartilage 4%</td>
<td>Chronic Obstructive Pulmonary Disease 1%</td>
</tr>
</tbody>
</table>
Timeline

• April 2017
  – Visit MGH Bridge Clinic
• May – June 2017
  – Data analysis of Brigham patients
• September 2017
  – Mass Health data on Medicaid patients to be attributed to our ACO
• October 2017
  – Approved to receive Delivery System Reform Incentive Payment (DSRIP) to initiate the Brigham Health Bridge Clinic
  – Brigham Operational Leadership approved available clinic space to house the Bridge Clinic
Timeline

- **November 2017**
  - Recruitment and Hiring begins

- **December 2017**
  - Business model development for FY’19

- **January 2018**
  - Space renovation begins
  - EPIC build for Bridge Clinic Department

- **February 2018**
  - Lab Operations Task Force to develop workflows and EPIC build for Oral Fluid Drug Testing

- **March 2018**
  - All staff hired and onboarded
  - Furniture delivered; space ready to move in
  - Received funding from donor to support education, research, and operations of the Clinic
April 2018: Launch!

Thanks to the thoughtful work of a multidisciplinary team, we have taken a significant step toward enhancing and expanding access to addiction treatment. The Brigham Health Bridge to Recovery - also known as the Bridge Clinic - opens its doors this month.
Objective:
Provide intensive ambulatory treatment for patients with SUDs and connect them to long-term, community-based treatment & resources.

Inpatients with SUDs-related diagnoses requiring ongoing treatment

Primary Care

ED Patients presenting with SUDs not needing inpatient-level care

BRIDGE CLINIC

- Addiction Pharmacotherapy
- Individual and group support services
- Co-treatment of complications with Specialty services (ID, Cards)
- Assistance with social services
- Connection to long-term care

Primary Care

Longer-term SUDs treatment

Community Resources
Brigham Health Bridge Clinic

Roles and Services:

- **Addiction Psychiatry and Medicine physicians**
  - Perform intake, prescribe medications, monitor comorbid medical and mental health complications

- **Addiction Social Worker**
  - Perform psychosocial assessment; lead group and individual sessions

- **Recovery Coach**
  - Provide peer support services; connect pts with long-term SUDs programs in community

- **Care Transition Specialist**
  - Screen for social determinants of health and connect pts with community resources (e.g., housing, food, transportation)
Medications for the treatment of Addiction

21 patients successfully started on Suboxone
- 1 woman on Subutex due to pregnancy
- 2 transitioned from methadone

Working with Brigham pharmacy to stock and administer Vivitrol for OUD and AUD in the Bridge Clinic
Home Suboxone Inductions

- Suboxone inductions are typically done at home; follow-up in 2-3 days
- Instructions reviewed in clinic prior to 1st Rx
- ED physicians obtaining waivers and will use the same home induction protocol with follow-up in Bridge Clinic next business day
Oral Fluid Drug Testing
Initial Experience

• **April 3, 2018**: Soft launch with referrals from Inpatient Addiction Consult team

• **April 16, 2018**: Open to BWH/FH ED referrals

• **May 17, 2018**: Open to Primary Care referrals

• **To date**: 48 patients referred → 26 engaged in care
Initial Patients

Demographics:
• Ages: 29-53
• Gender: 15 male, 11 female
• Insurance: 17 MassHealth, 4 Medicare, 5 Commercial

Social Determinants:
• Homeless: 11 (42%)
• No phone: 6 (23%)
• No Identification Card: 6 (23%)

Infectious Complications:
• 9 with bloodstream infections related to IDU
• 16 patients tested for HIV/HCV; of these:
  • 3 HIV+ (19%)
  • 13 HCV+ (81%)
Initial Patients

- Treated 2 patients at home with PICC lines for infectious complications from IDU
- Both successfully completed 6 weeks of IV antibiotics
- Initiated on Suboxone prior to discharge
- Twice weekly visits in Bridge Clinic; in coordination with ID visits
- Both had tox screens showing only buprenorphine confirming treatment

Collectively avoided 69 inpatient days
Bridge Clinic Patient Stories

James*
- 29M with active injection drug use, HCV infection
- Admitted 3/18 – 4/4 for MRSA bacteremia and epidural abscess
- Started on Suboxone; received PICC line and discharged home with family to complete 6 weeks IV antibiotics
- Seen 2x week in Bridge Clinic with coordination of weekly ID follow-up
- Oral tox screens confirm pt taking Suboxone; no other substances
- Pt originally on TPP; Bridge Clinic CTS helped patient find PCP in Steward ACO
- Antibiotic course ended 5/4; PICC line removed
- Pt will transition SUD treatment to New Horizons closer to home

Sara*
- 26F homeless with active injection drug use, HCV, 16 weeks pregnant with no prenatal care, recent victim of human trafficking
- Presented to ED the night of 5/2 requesting detox
- Started on Subutex in ED; seen following morning in Bridge Clinic
- Working with trauma care NP, patient able to secure housing in a house for pregnant women and children
- Connected with Brigham OB for prenatal care
- Seen weekly at the Bridge Clinic and continues to maintain sobriety while on Subutex.
Future Plans

• **Year 1:**
  • Expand to include formal collaboration with OB with embedded OB clinic and pregnant women’s groups
  • Data tracking and analysis of clinic patients
  • Ongoing internal and external communication

• **Year 2:**
  • Research study to evaluate outcomes of patients discharged home with PICC lines and Bridge Clinic treatment (overall morbidity, mortality, SUD and ID outcomes)

• **Year 3:**
  • Establish Brigham Health Addiction Medicine fellowship
  • Precept Internal Medicine and Psychiatry residents in Bridge Clinic
Future Plans

Policy and Education
Lead the advancement.

Research
Collaborate within and globally to accelerate research and translation.

Pain
Develop better treatments and approaches for acute and chronic pain.

Prevention
Lead innovation in predicting and intervention.

Addiction
Lead innovation in treatment.

Community and Family
Prioritize innovations to support our communities and families.

Sirona: Goddess of Healing
Hey its .. just wanted to text you saying thank you so much and to everyone else that helped me yesterday .. Never thought id get to this point of feeling secure and safe with my pregnancy recovery and housing plan .. Been trying since 18 to get this help and all really set me up with another chance at having a life and it all seems possible .. A weights lifted and i can finally breathe its gonna be a long road but i have hope now. And im super greatful i got set up with such awesome people that i can tell genuinely care therers a lot of love at BWH so Thanks again. I'm excited and not sacred to start this new chapter in my life just going to stay in the day and be thankful for all you guys have done.
Questions?

Email: cnprice@bwh.harvard.edu