Medication Assisted Treatment: Program Implementation & Outcomes

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Gateway Rehab is a private, not-for-profit organization that is a positive force and leader in the prevention, treatment, education and research of substance misuse and addiction.

- **Our Mission:** To help all affected by addictive diseases to be healthy in mind, body and spirit.
- **Our Vision:** To be a preeminent national resource for effective addiction treatment, prevention, education and research.

Gateway Rehab was founded in 1972 by Dr. Abraham J. Twerski, an internationally recognized authority in addiction treatment.

First opened as a 28-day, abstinence-based alcohol and other drug treatment center.
Our 12 Values and Commitments Support Our Mission and Vision

1. We recognize that addiction is a treatable and chronic disease.
2. We value the importance of self-help groups for ongoing recovery, especially AA, NA and related 12-Step programs.
3. We affirm that, with abstinence as a primary goal, when a patient may be better served by alternative treatment approaches and modalities, we will respond positively.
4. We believe that adherence to strong ethical standards of conduct in every area should never be compromised.
5. We believe in treating everyone with respect and dignity.
6. We are committed to ethical and responsive internal and external customer service.
7. We are eager to maintain our leadership role in the addiction treatment and prevention communities.
8. We are committed to ongoing research and evaluation of all our programs and services to insure that we are striving for excellence in all that we do.
9. We value the people who work for Gateway and know they are the key to our success.
10. We are committed to maintaining a financially healthy organization and support the use of sound business practices in every area.
11. We are dedicated to making our services financially, geographically and programmatically accessible.
12. We will treat co-occurring disorders when it contributes to the treatment of the primary addiction.
Our Philosophy

• The individual is recognized, not only as a being of uniqueness, dignity and worth, but, also, one with the capacity for personal growth, responsibility, self-determination and health. Gateway views addiction as a primary illness rather than as a symptom of any other problem; although, the cause is unknown, the illness is viewed as treatable.

• It is Gateway Rehab’s belief that recovery from addiction involves the healing of all the dimensions of a person – physical, intellectual, emotional, social, vocational and spiritual. The process involves an improvement in self-awareness and self-image, gradually realizing and accepting that recovery is a life-long process that demands ongoing commitment.

• The resources for recovery lie within the person, and with the professional and self-help communities. Gateway gives special recognition to the role of 12-step programs in fostering recovery; however, we understand that, while the 12-step approach has been proven “best for most,” some patients may need to choose other pathways to recovery.
Gateway Rehab serves nearly 1,700 adults and youth daily through four divisions at 20+ locations throughout Western Pennsylvania and Ohio. Some of our treatments and services include:

- Detox
- Inpatient Care
- Outpatient Care
- Halfway House (Extended Care Division)
- Youth Services
- Research & Training
- Employee Assistance Program & Other Outreach Programs
- Corrections Division
Objectives

1. Dispel myths about medication assisted treatment (MAT) and show how it can coexist within an abstinence-based treatment approach.

2. Educate participants about the biological bases of addiction and the pharmacological interventions that have been shown to be successful in treatment.

3. Examine the integration of an MAT program at one provider and utilize research data to demonstrate its effectiveness.
Advances in science and technology

• Allow us to see functional and structural changes inside the body, particularly in the brain

• Assist in the creation of new medications that meet the needs of people in various stages of treatment (i.e., detox vs. maintenance)

• Increase recognition that patients present with different treatment needs and follow different pathways to recovery

• Provide overwhelming support for the statement “Treatment works”
The bio-psycho-social-spiritual model of treatment

The Minnesota Model emerged in the 1940’s as a new model for chemical dependency treatment. One of the tenets of this treatment philosophy was that:

THE TREATMENT OF ALCOHOLISM INCLUDES PHYSICAL, PSYCHOLOGICAL, SOCIAL, AND SPIRITUAL DIMENSIONS
Opioids-Definition

- Opioids act on specific receptors in the brain and the body, which also interact with naturally produced substances known as endorphins-important in regulating pain. While prescription pain relievers can be highly beneficial if used as prescribed, opioids as a general class of drugs have a high potential for abuse.
Figure 1. Primary substance of abuse at admission: 1999-2009

SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS). Data received through 11.03.10.
Overview

• **Opiate** admissions increased from 16 percent of admissions aged 12 and older in 1999 to 21 percent in 2009.

• **Heroin** admissions increased from 15 percent of admissions aged 12 and older in 1999 to 16 percent in 2001. They declined to 14 percent in 2005 and remained there through 2009. Heroin represented 92 percent of all opiate admissions in 1999 but declined steadily to 67 percent in 2009.

• **Opiates other than heroin** increased from 1 percent of admissions aged 12 and older in 1999 to 7 percent in 2009. Opiates other than heroin represented 8 percent of all opiate admissions in 1999 but rose to 33 percent in 2009.
NATIONAL TRENDS

Increase in Unintentional Overdose Deaths Involving Opioid Analgesics, 1999–2008

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>1999</td>
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<td>2008</td>
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Source: Centers for Disease Control and Prevention, National Center for Health Statistics, accessed through CDC WONDER Online Database, released 2011.
NATIONAL TRENDS - Drug overdose death rates by state per 100,000 people (2008)

Fatal Overdoses By Year - Allegheny Co., PA

includes all substances

Source: http://www.overdosefreepa.pitt.edu/
**Additional Allegheny Co. Stats**

### Allegheny County overdose fatalities

From 1980 to 1990, Allegheny County recorded an average of 58 overdose fatalities per year. Since 2000, the county has recorded an average of 222 fatalities per year.

#### Overall overdose fatalities, 1998-2012

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<td>'11</td>
<td>262</td>
</tr>
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<td>'12</td>
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#### Overdose fatalities with heroin present, 2007-12

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<th>Year</th>
<th>Fatalities</th>
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<tbody>
<tr>
<td>2007</td>
<td>225</td>
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<td>223</td>
<td>79 (35%)</td>
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<td>227</td>
<td>82 (36%)</td>
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<tr>
<td>2011</td>
<td>262</td>
<td>95 (36%)</td>
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<tr>
<td>2012</td>
<td>288</td>
<td>138 (47%)</td>
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</table>

*Overdose with heroin alone or in combination with other drugs

Source: Allegheny County medical examiner’s office

Post-Gazette
Opioid admissions to Gateway as compared to all admissions, 2002-2014
Abstinence-based Treatment and MAT: friends or enemies?

• How to mitigate these two seemingly “rival” approaches?

• View MAT as a treatment adjunct, not a standalone approach
  – MAT functions as a means to assist people to reach a stable, Twelve Step-based recovery lifestyle with the end goal of no opioid use

• Educate audiences on the increased vulnerability of people who are opioid-dependent

• Define abstinence (with MAT) as analogous to a person who is taking medication appropriately under a physician’s care while recovering from surgery…intent is NOT misuse/intoxication  (from Hazelden’s response to opioid addiction)
Medication-Assisted Treatment Options

• Methadone

• Buprenorphine
  – Subutex®
  – Suboxone® (buprenorphine + naloxone)
  – Zubsolv®

• Naltrexone
  – ReVia®
  – Vivitrol®
Medication-Assisted Treatment Options

- Buprenorphine
  - Approved for use in the early 2000s
  - Used for medically supervised withdrawal and maintenance
  - Available in two sublingual forms
    - tablet
    - film
  - Suboxone® contains naloxone which will induce withdrawal if used with other opioids
    - 2006 Gateway published study on Suboxone’s use in detox – significant differences in lengths of stay
Medication-Assisted Treatment Options

• Naltrexone
  – Approved in the mid-90s for alcohol dependence
  – Blocks the effects of opioids
  – Can precipitate withdrawal, but no w/d symptoms when use ceases
  – Available in two forms
    • Oral – taken daily (generally poor compliance)
    • Injectable – once monthly
MAT Stages

• **Induction**
  - Goal is to eliminate withdrawal symptoms
  - Begin when there are no signs of opioid intoxication and withdrawal is starting

• **Stabilization**
  - Goal is to eliminate drug-seeking behavior, craving, and illicit opioid use or prescription opioid abuse
  - Dose can increase

• **Maintenance**
  - Goal is for patient to resume normal functioning while receiving regular doses and without dose adjustments
Gateway’s MAT Program

• Rationale for the program
  – Increase in Opiate-dependent patients
  – Difficult, challenging non-compliant patient population
  – High rate of unplanned discharges
  – Low rate of transfer to Outpatient

• General time line of creating it
  – Suboxone for Detox 2004
  – Vivitrol introduced in 2012
  – Suboxone for Maintenance introduced in 2013
Gateway’s MAT Program

Serving a Need

• Addiction is a bio-psycho-social-spiritual disease that causes numerous consequences to individuals, families, and society. Gateway is seeing more patients in higher levels of care (e.g. Detox, Inpatient) than ever before. In order to achieve clinical excellence, Gateway must explore all available evidence-based practices and medicines for the patients we serve in order to give them the best chance at recovery. Given the ongoing opioid addiction epidemic and challenges with outpatient retention, Medication Assisted Treatment (MAT) modalities can be useful tools in Gateway’s toolbox and saving patients’ lives.
Gateway’s MAT Program

• An MAT Specialist was hired to provide services and coordinate care for patients eligible for and/or currently involved with Medication Assisted Treatment across our treatment programs.

• Specialized education groups and treatment programming will be provided to patients and families at Abe’s Place & across all Outpatient locations.

• Patients will begin medication (e.g. Suboxone, Revia, Vivitrol) while at Abe’s Place under the supervision of Dr. Capretto and then be followed up while in Outpatient treatment by Gateway Physician, private Physician, or Community Physician group.

• Patients can also begin medication as an Outpatient under the supervision of a Gateway Physician.

• Patients enter Inpatient & Outpatient levels of care already on medication from a private/community physician and can be maintained while in treatment.

• The primary goal for MAT is to increase patient retention for a highly treatment-resistant opioid-dependent population.
Suboxone Questions/INFO

IS A GATEWAY REHAB MAT PROGRAM RIGHT FOR YOU?
In order to provide patients with the best course to success, Gateway Rehab does not offer a prescription-only program. Patients in Gateway Rehab’s MAT program must commit to medication in combination with behavioral therapy.

Suboxone Treatment Program admission requirements:
- History of opioid use for at least one year.
- Prior discussion of naltrexone as a treatment option.
- Willing and able to follow all treatment requirements.

About Suboxone (sublingual buprenorphine/naloxone)
- Suboxone reduces cravings and blocks the effects of other opioids.
- Suboxone produces few opioid effects, and, at the appropriate dose, blocks the effects of other opioids.
- If injected, naloxone blocks other opioids and deters misuse of Suboxone.
- Suboxone helps to suppress withdrawal symptoms in opioid-dependent persons. Suboxone decreases cravings for other opioids and reduces and/or blocks the effects of full opioids, such as Oxycodone or heroin.

Suboxone Counseling Requirements:
• All patients enrolled in the Suboxone Treatment Program begin in Level 1 and will graduate through the level system (see following) based on sobriety time, 12-step involvement and treatment progress.
• All patients must agree to random drug screens by Gateway Rehab staff.
Agreement w/ Community Physicians

EXHIBIT A

- Provides professional services that are medically necessary and appropriate including providing diagnosis, history, and medical evaluation for medication assisted treatment (MAT) program patients.
- Provides availability of physician resources to provide the following professional services to GRC MAT patients for the first twelve weeks of a patient’s outpatient treatment including:
  - Weekly office visit with a physician
  - Weekly Drug screen
  - Weekly prescription for Suboxone if the patient has complied with the GRC MAT program protocol. Prescription is to be provided to patient following verification of compliance with GRC MAT program protocols.
  - Weekly communication with GRC Staff (Case Manager, Clinical site Manager, or Primary Therapist) for each patient in the GRC MAT program.
- Provides availability of physician resources to provide case consultation as needed for patients that are not compliant with GRC MAT program protocols including participation in discussions of alternate treatment providers, assignment in alternative levels of care, and altering the dosage recommendations for Suboxone.
- Agrees to discharge patients from the practice for patients that have been discharged from the GRC MAT program for non-compliance.
Patient Referral

Suboxone Questionnaire

How long has patient used opioids?
Patient has tried Naltrexone in past (Vivitrol/ReVia): yes no
If yes, how long was patient successful in remaining abstinent?
Patient has reliable transportation verified by staff: yes no
How many previous D&A tx experiences:
Patient has tried Suboxone/Methadone Maintenance: yes no
If yes, How long?
If yes, was patient compliant with program? yes no
If yes, did patient divert medication? yes no
Patient has stable housing, verified by staff: yes no
Residing With?
Patient’s Probation Officer authorized Suboxone (verified by staff) yes no
Patient is willing to attend IOP or PHP at another Gateway Site: yes no
Additional Comments:
I understand that the following behavioral standards are expected of me. I agree to comply with them in order to continue my treatment at Gateway. I understand that failure to meet these expectations may result in additional therapeutic interventions, including discharge.

I realize that I am to follow all Gateway Rehabilitation Center rules, including but not limited to attending Outpatient Treatment on the days and times I am scheduled. I understand that I will provide urine drug samples when asked by staff. If I tamper with the urine sample, in any way, I will be immediately discharged from Gateway’s Medication Assisted Treatment Program which means I will not be allowed to continue with Suboxone. I agree to attend all of my medication appointments and to notify my therapist in advance when the appointment is scheduled. Failure to abide by these rules will result in discharge from Gateway Rehabilitation Center.

Contract will be reviewed:
Barriers

- Diversion
- Communication/Collaboration
- Family
- Transportation
- Insurance/Funding
- Recovery Environment (e.g. Halfway, ¾-way/Recovery Houses)
- 12-Step Community
- Community Suboxone Clinics
  - Ones that provide minimal oversight
  - Give 30-day prescriptions w/out a phase/level system
  - Ones that do not require Patients to receive the clinically recommended drug & alcohol treatment
Barriers-Continued
Confiscation Report-Searches

• Syringes: 342

• Suboxone: 157

• pills: 695

• Stamp bags: 1,510

• Paraphernalia items: 185
Building the Evidence for MAT

Assumptions…MAT program has…

• No impact on detox LOS and discharge reason

• Some impact on inpatient LOS and discharge reason

• Much impact on outpatient LOS and discharge reason

• Some impact on halfway house LOS and discharge reason
Building the Evidence for MAT

Assumptions…Patients will experience the most positive effects of MAT…

• During a course of **outpatient** treatment

• If **multiple doses** of the medication are received

• If the medication is **combined with recovery-based activities** such as twelve step meetings
Sample Selection

• Vivitrol only
  – 157 total patients rec’d at least one injection in 2014

• 60 matched pairs (Viv+ matched to Viv-; no MAT at all)

• Patients dropped from the sample if
  – primary dx = 303.90
  – involved with PNAP

• n=141 for this data set (approx 43% of sample here)
Sample Selection

- Vivitrol patient selected from tracking spreadsheet
- Possible matches identified on 2014 admissions spreadsheet (usually 3 or 4)
  - gender
  - age
  - race
  - opi dep dx
  - admission date
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<th>Admit Date</th>
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<th>Age</th>
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Sample Description (n=120)

Vivitrol

- 34 males; 26 females
- $M_{\text{age}} = 26.32\text{ yrs}$
- 59 white; 1 non-white
- 28 private; 32 public

non-Viv

- 34 males; 26 females
- $M_{\text{age}} = 26.48\text{ yrs}$
- 59 white; 1 non-white
- 28 private; 32 public

* 92 injections given; most rec’d 1; 2 rec’d 5; 1 rec’d 6
Discharge Reasons

There is a significant difference between those in the Viv+ group and the Viv- group for early (unplanned) discharges on inpatient.

There is not a significant difference between these groups on this outcome variable for the first episode of outpatient treatment.
Length of Stay (LOS)

There is a **significant** difference between those in the Viv+ group and the Viv- group (18.27d vs 14.18d) for **inpatient**.

There is a **significant** difference between total LOS for **all outpatient episodes** combined (21.57d vs 8.03d).

There is a **significant** difference between these groups for LOS in **halfway houses** (7.32d vs .23d).
Service Days

Most important for OP

Tallied actual service days for each OP episode then summed across and averaged

There is a significant difference between the Viv+ and Viv- groups for total OP service days (9.54d vs 2.36d)
"Afterward, there will be a short Q. and A. that will be just long enough for one person to take up too much of it."
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