Buprenorphine MAT: Low Threshold, Patient-Centered, and Low Cost Care

Neil M Flynn MD MPH[1], Phillip J Summers MD MPH[1, 2], Andrew R Gilbert BS[1]

[1]Transitions Clinic

[2]University of California-Davis, Department of Emergency Medicine

3647 40th Street, Sacramento, CA, 95817, nmflynnmd@gmail.com

Poster #22

Introduction

A number of approaches for the treatment of opioid use disorder (OUD) have been tried over the past 90 years, with varying degrees of success. The oldest approach, that of physicians prescribing opioids for their addicted patients, from the post-civil war period up until 1920 has come around again in the form of the opioid substitutes methadone and buprenorphine.

The 12-step/12 traditions method costs nothing unless it is offered as part of "rehab", and it has a large following among the general public and among people with OUD. "Rehab" can be offered as residential or outpatient, can cost the person with OUD from nothing (paid for by insurance or government programs) to many thousands of dollars per month for high-end programs for the rich and famous. It can utilize 12-step, cognitive-behavioral, and motivational approaches in varying combinations. In 5-year follow-up of people in 12-step programs, about 15-25% are abstinent from opioids for varying lengths of time. Following 90-day detox/rehab about 20% of participants remain abstinent in 1-year of follow-up.

In the 1960s and '70s methadone became available for the treatment of OUD and now more than 350,000 people in the U.S. are in a methadone maintenance program. The appearance of buprenorphine in the 21st Century and its relative safety compared to methadone offers another opportunity to treat opioid-dependent people. Unfortunately, as of 6/2018, SAMHSA has no data on the number of people receiving buprenorphine, only the number of licensed prescribers and their theoretical treatment capacity. Buprenorphine appears to be safer than methadone with regard to overdose. Buprenorphine maintenance therapy reduces death by 2 to 6-fold.

Costs of treatment with methadone and buprenorphine are similar. Buprenorphine prescribers are limited to a maximum of 275 patients at a given time, an arbitrary number arrived at presumably by negotiation between proponents (SAMHSA) and opponents of substitution therapy (DEA & law enforcement). Until recently the abstinence-only treatment community (rehab, detox, 12-step) has rejected medication-assisted treatment as substituting one drug for another, and not truly being "in recovery". At one year of follow-up, opioid users are significantly more likely to remain abstinent if taking MAT vs. abstinence only treatment. Buprenorphine MAT (B-MAT) differs from methadone MAT in several important respects including less cognitive adverse effects, widespread availability if adopted by primary care providers, fewer visits to the medical provider to obtain the medication, and greater ease of returning to work. Individuals on buprenorphine MAT function, for all practical purposes, normally.

Methods

From a total of 1594 patients seen in our clinic between 2008 and 2018, we randomly selected 231 "inactive" patients from among 1027 "inactive" patients and 100 patients from among 567 "active patients". Chart abstraction was performed on the randomly selected patients. Variables included demographics, co-occurring disorders, opioid of choice, route of administration, previous treatment modalities, other illicit drugs used, previous overdoses, highest dose of buprenorphine, length of treatment.

Description of Practice

Over the past 10 years Transitions has developed practices that are driven by 1) harm reduction principles (first, *keep the patient alive*), 2) cost-containment, 3) patient-centered care, 4) a low threshold for inclusion in the program, and 5) a high threshold for removal from the program.

Features include:

We serve a relatively large volume of patients (568 current)
Patients are treated with the same respect and consideration as patients with HTN, DM, or CHF would be;
Trauma-informed care is promoted, using the ACE questionnaire;
Motivational interviewing style is used;
Psychiatric issues are identified and addressed as quickly as possible; psychiatric consultation is sought whenever possible; psych medications are prescribed;
Case management is available on site and at no charge;
Prior authorizations are done by a clinic insurance specialist, requiring approx. ½ FTE;
Clerical staff include people who are themselves taking buprenorphine;
Peer counseling is available;
Prescribers include a retired primary care physician, part-time primary care practitioners, a nurse practitioner, and primary care residents from UC Davis and Sutter Family Practice Programs;
Patients are seen by a physician or nurse practitioner at every visit and s(he) provides the majority of counseling; the provider is paid $50 per patient seen, up to 3 per hour;
Primary care residents from two residencies rotate through the clinic and are encouraged to moonlight in it; medical students from UC Davis rotate through the clinic;
We offer *same or next day induction* for walk ins or referred patients; we are linked to area emergency departments for referral;
We provide the induction dose of buprenorphine free of charge;
Patients who are expected to be at high risk of precipitated withdrawal on induction are treated more carefully than those without risk factors for precipitated withdrawal;
The charge for the first month of therapy ($200) includes induction;
Destigmatization begins on the first visit and is reinforced at every visit;
Patients must be seen every month, with some exceptions; the exceptions are seen every 2 months; each monthly or bi-monthly visit costs $200;
Patients are charged $150 - 200 per month depending upon how long the patient has been coming to the clinic; we do not accept insurance for the visit; patients can submit their charges to their insurance company; this will change when Medicaid begins to reimburse the same as for methadone maintenance treatment;
If more than one visit is needed in a month there is no charge for it;
Following induction, patient dose is escalated every 7-14 days until subjectively *all craving is suppressed*;
Drug testing is done for the purpose of discussion only, problematic results are sent for confirmatory testing;
Patients receive a one-month prescription at each visit unless shorter duration seems indicated; diversion is discouraged, looked for, and addressed;
Plain buprenorphine is prescribed not infrequently, for patients who pay for their own buprenorphine, whenever significant side effects to the bup/naloxone combination are encountered, or when insurance requires it;
Lost/stolen medications are replaced after police report filed; the patient must pay for the medication because insurance will not pay for it;
Follow-up patient visits are scheduled every 20 minutes;
The clinic does not make a "profit". It breaks even.

Results

Table 1: Demographics of Study Population

	Active, n=100	Inactive, n=231
Mean Age at Tx	34	36
Median Age at Tx	32	34
Minimum Age at Tx	19	17
Maximum Age at Tx	63	67
Male	65, (65)	140, (60)
Female	35, (35)	90, (39)
White	79, (79)	179, (77)
Asian	4, (4)	4, (2)
Latin(o/a)	7, (7)	19, (8)
Black	4, (4)	9, (4)
Native American	2, (2)	3, (2)
Lives 0 to 10 miles from Tx	34, (34)	94, (41)
Lives 11 to 20 miles from Tx	38, (38)	59, (26)
Lives 21 to 40 miles from Tx	17, (17)	26, (11)
Lives 40+ miles from Tx	11, (11)	28, (12)

Table 2: Other Characteristics of the Study Population

	Active, n=100	Inactive, n=231
Opioid of Choice: Heroin	32, (32)	136 (59)
Opioid of Choice: Rx	51, (51)	72 (31)
Opioid of Choice: Bup	14, (14)	20 (9)
Inject Opioid in Past 3 Months	30, (30)	99, (43)
No Inject Opioid Past 3 Months	66, (66)	105, (45)
Hx of Overdose	21, (21)	59, (26)
No Hx of Overdose	74, (74)	133, (58)
Stimulant Use in Past 3 Months	25, (25)	52, (23)
Benzo Use in Past 3 Months	35, (35)	73, (31)
MJ Use in Past 3 Months	41, (41)	90, (39)

Table 3: Duration and Form of Bup Tx

	Active, n=100	Inactive, n=231
Mean Duration of Tx	33.3	7.0
Median Duration of Tx	23.0	2.2
Minimum Duration of Tx	2.0	0.0
Maximum Duration of Tx	101.4	40.7
Mean # Episodes in Tx	1.5	1.3
Median # Episodes in Tx	1	1
Minimum # Episodes in Tx	1	1
Maximum # Episodes in Tx	5	6
Plain Buprenorphine Rx	51, (51)	158 (68)
Combo Rx	49 (49)	73 (32)

Table 4: Psych Meds Received With Bup

	Active, n=100	Inactive, n=231
Benzodiazepines	14, (14)	29 (13)
Other Anxiolytics	9, (9)	15, (6)
Anti-Depressants	36, (36)	42, (18)
Anti-Psychotics	3, (3)	8, (3)
ADD Stimulants	7, (7)	5, (2)
Did Not Receive Other Medication	56, (56)	162, (70)

Figure 1

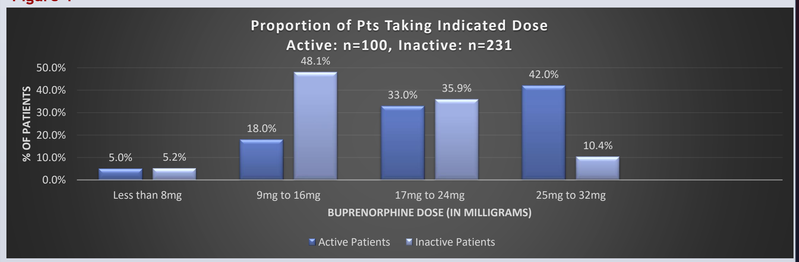
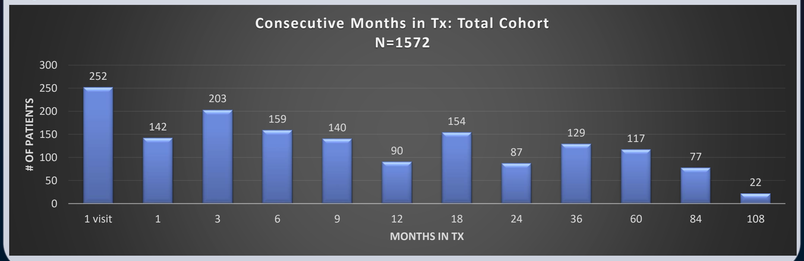


Figure 2



Discussion:

Our findings suggest that low threshold, patient-centered and low cost care is possible in a large clinic setting, and patients are willing to pay for it in the absence of insurance coverage. In California, changes in Medicaid will increase reimbursement to a level higher than that required to support a program such as ours and attract more patients who cannot afford to pay for the monthly cost themselves. Retention >1 yr. was reasonably good (43% intention to treat, and 51% among those who returned for first follow-up). We attribute this partially to our practice of increasing the buprenorphine dose in the individual patient until *all craving has ceased*. We also believe that treating patients respectfully contributed to their satisfaction with treatment. We rely more heavily on plain buprenorphine than most programs, due to a significant number of patients without insurance and a low threshold for changing to plain buprenorphine due to side effects. Our higher doses of buprenorphine may be contributing to a higher than usual incidence of side effects seen with the combination.

Benzodiazepine use was not infrequent, and one of the authors will treat benzo dependence using the Ashton Protocol, out of necessity rather than choice: patients are taking them, they contribute to overdose risk, and there are few resources in our community to treat benzo dependence. Methamphetamine use is also common in our population, but we do not consider it a reason for discontinuing buprenorphine. We apply motivational interviewing techniques and psychiatric treatment to try to reduce methamphetamine use. Anti-depressant use is common in our population. Whether this contributes to success in long-term maintenance therapy is unknown. The most common combination in our clinic for treatment of co-existing OUD and depression is buprenorphine and bupropion (Wellbutrin).

Buprenorphine MAT has the potential to dramatically reduce the current >60,000 opioid overdose deaths per year if it were to be widely promoted and applied. The French experience suggests this.

Further studies need to be done to see if our model is any better than the more restrictive models favored by methadone programs that have begun prescribing buprenorphine as well.

Is the opioid epidemic an emergency situation or isn't it? Do we believe that OUD is a brain disorder or don't we?

If the answers are 'Yes", we can make rapid changes that will probably lead to more PLOUD in B-MAT and, consequently, fewer deaths. The evidence base will need to catch up with observations and empirical treatment.

Multiple barriers to the adoption of large-scale buprenorphine MAT exist, and are not being addressed rapidly enough. *Barriers include:*

The individual physician limit on the number of BMAT slots available;
Disproportionate reimbursement of methadone maintenance as compared to buprenorphine maintenance;
Entrenchment of M-MAT programs;
Obstructionist policies and procedures of insurance companies;
Use of the methadone MAT model which is unnecessarily complicated and expensive;
Failure to adequately recognize the safety of B-MAT;
Inadequate dosing to control *all* craving because craving probably leads to relapse;
Widespread fear of the DEA among potential B-MAT providers;
Unfounded provider prejudice against people living with OUD (PLOUD);
Inadequate reimbursement to make it worthwhile to put up with perceived regulatory requirements and perceived difficulty working with PLOUD;
Underuse of telemedicine for reaching PLOUD in rural areas;
Higher than necessary costs of outpatient care of PLOUD to insurers and government programs;
Lack of accurate information about B-MAT on the street (among PLOUD) and among the general public;
Stigma associated with BMAT;
Misperception that "REHAB" is effective (20% at 6 mos.)
Stop considering street buprenorphine as misuse

So, what needs to be done, ASAP

Remove patient limits.
Stop treating PLOUD as criminals. Treat them respectfully.
Enforce the parity rule for mental health and drug treatment, force insurers to treat appropriately and stop obstructing.
Adopt the French model of buprenorphine distribution.
Major effort to educate general public and PLOUD about safety, efficacy and cost-effectiveness of B-MAT.
Improve reimbursement to match that of methadone.
Intensive provider education to reduce resistance to working with PLOUD.
Increase rural access to telemedicine B-MAT.
Deregulate B-MAT use and program design.
Study the effects of higher doses of buprenorphine on retention and relapse.
Consider allowing low-cost generic plain buprenorphine to replace bup/naloxone combination, particularly branded combinations.
Public and PLOUD education campaign about B-MAT as was done for ARVs in AIDS.
Public and PLOUD education about physiology of opioid dependence - opioid use is not a choice, it is an imperative for dependent people. It is a brain disorder.
Marketing of B-MAT to African American PLOUD.

Conclusions

We have presented a model of a large multi-provider buprenorphine MAT practice that uses part-time community physicians, primary care resident physicians and a nurse practitioner, and that has treated 1572 patients over a ten-year period. All patients sought care from us because their primary care physicians would not/could not provide buprenorphine MAT. 36% of all patients treated are still in treatment, for a mean duration of treatment of about 33 months. The practice features a low-threshold for entry, is patient-centered in terms of convenience, non-judgmental treatment, low expectations for additional counseling, case management to obtain Medicaid for medication coverage and emphasis on work and family during motivational interviewing. Psychiatric conditions are diagnosed and treated, and internal and societal stigma are addressed aggressively. Tapering and weaning are not encouraged, but if desired, extremely slow weaning is encouraged. Costs have been kept to a minimum and patients are willing to cover the fee out-of-pocket. Patients are generally satisfied with their care, and Transitions providers enjoy working with this population.