

Buprenorphine Treatment of Prescription Opiate Addiction.

John McCarthy, M.D.
Executive/Medical Director
Bi-Valley Medical Clinic
Sacramento, CA
Assistant Professor of Psychiatry
University of California, Davis
jmccarthy@bivalley.com

Opiate Use in Sacramento, California

- ▶ Sacramento has experienced a 40% increase in opiate abusers in public funded drug treatment programs from 2006–2008. 47% of this population were using pills.
- ▶ Bi-Valley Medical Clinic’s methadone treatment programs have seen a dramatic shift from heroin users to oxycodone and hydrocodone
- ▶ In our urban Sacramento clinic, 91 of the last 198 admission to MMT (46%) were using pills, 38% hydrocodone, 8% oxycodone.
- ▶ In our Carmichael clinic, 238 of 315 admits (75%) were using pills (43 % oxy, 32% Vicodin/Norco)

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Retrospective Review of 243 Consecutive Admits to a Private Buprenorphine Program

- ▶ First patient induced in September 2004
- ▶ It is a private pay program. No public funding.
- ▶ No insurance coverage for the medication at that time. Now it’s more common.
- ▶ Insurance coverage for physician office visit.

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Program Design

- An independent Office-based medical model. Patients are treated as private practice patients under each physician’s ‘waiver’.
- Team: 3 MDs, 2 AHPs (nurse practitioner/physician assistant), 1 manager, 1 admin assistant, 1 fiscal (all part-time).
- Physician/AHP model of care. Physician visits 15–20 minutes

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Screening

- ▶ Generally phone screening done by manager or AHP. Intakes scheduled in 1–2 days.
- ▶ We used a flexible maintenance model, a 1 week induction fee, followed by a monthly fee.
- ▶ Most referrals come from finding us on the Web, but many from our existing patients.

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Assessment/Induction

- Patients scheduled early in week and instructed to be withdrawal.
- Patients are seen 2–3 times the first week and given doses from stock at each visit to last to the next visit. No reporting required to law enforcement. Violates confidentiality.
- Hepatic function screening for acetaminophen toxicity.

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Induction

- Initial dose is 4mg Subutex generally followed by 4mg in 1 hr, then 4mg in 1-2 hrs if necessary.
- Patients are generally given take home 'rescue' doses of 4mg or 8mg for the evening if needed, and enough to take 8 mg (usually) the following morning before returning to the clinic, i.e. generally 16mg as TH.
- Dose range 4mg up to 12-16mg on first day.

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NIDA START Study

Starting Treatment with Agonist Replacement Therapies

- ▶ Bi-Valley is a site within California/Arizona Node of the National Institute of Drug Abuse (NIDA) Clinical Trial Network in a study comparing Buprenorphine vs Methadone as a treatment for opiate addiction.
- ▶ Bi-Valley had the best retention rate among the 10 sites across the country in this study.
- ▶ Date from this study should be published in 2011.

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Stabilization

- After induction, appointments on a weekly basis for the first month. They are encouraged to attend an evening support group and NA/AA.
- Scheduled with the M.D. every 2 weeks for the next 2-3 months.
- Prescriptions are written starting the second week and only at times of clinic visits to last till next physician visit

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Maintenance

- Patients are seen monthly after the first 2-3 months.
- Psych assessments and med management done as needed.
- All patients have urine drug testing via insta-test monthly, with screening for:
 - opiates, cocaine, benzos, THC, methamphetamine, and oxycodone.

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Patient Demographics on Admit

- Average age 36 yrs, range 17-78
- 102 (42%) were under 30 years
- 33 (14%) were under 22 years
- 70% male

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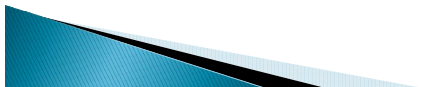
Drug Use History on Admit

- ▶ Hydrocodone 69%
- ▶ Oxycodone 47%
- ▶ THC 28%
- ▶ Cocaine 13%
- ▶ Heroin 8%
- ▶ Methadone 7%
- ▶ Methamphetamine 4%

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Route of Administration

- ▶ PO 77%
- ▶ Inhalation (smoking, snorting) 29%
- ▶ IV 11%
- ▶ Some overlap



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Duration of Treatment (N=243)

- ▶ 11 had < 1 week (4%)
- ▶ 46 had 0–4 weeks (19%)
- ▶ 30 had 5–8 weeks (12%)
- ▶ 93 had 8–50 weeks (38%)
- ▶ 63 had 1 year or > (26%)



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Drug Test Results (Insta-tests) 211 patients

- ▶ Opiate pos UAs (2004–2009) 5% (96/1844)
- ▶ Oxycodone 6% (36/577 tests from Nov 2007)
- ▶ THC 12% (222/1844)
- ▶ Benzodiazepine 12% (217/1844) Mostly legitimate prescription
- ▶ Cocaine 3% (52/1844)
- ▶ Amphetamine 2% (31/1844)



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Dose Range: max dose used

- ▶ 116 (48%) received < 24mg/day
- ▶ 127 (52%) received 24mg/day or >
- ▶ 51 (21%) received 28mg/day or >
- ▶ 34 (14%) received 32mg/day



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Response in 102 Patients Under 30

- ▶ 81% male
- ▶ Duration of treatment
 - Average 29 weeks, median 16 weeks
 - 20% retained for 1 year or more
 - 3 patients retained for >3 years
- ▶ This age group had:
 - 35/36 oxy positive tests, but 82% never used oxy after admission
 - 62/96 other opiate positive tests, but 70% never used other opiates after admission
 - 61% of the THC positives



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Co-occurring Disorder by History on Admission

- ▶ Chronic Pain (CP) 110 (45%)
 - ▶ 57% received a max bup dose of 24mg or >
- ▶ Prior Mental Health (PMH) 102 (42%)
 - ▶ 50% received max bup dose of 24mg or >



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Active Patients N= 44

- ▶ Average length of treatment 104 weeks (Inactives (N=199) averaged 33 weeks)
- ▶ 33% received max dose of 32mg (average 24mg) Current average 18mg
- ▶ 69% had either Chronic Pain or Prior Mental Health, 31% had both

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Case: Pain and Addiction

- ▶ 50 yr/old admitted with active Vicodin addiction, past hx of alcoholism, and chronic back and neck pain and surgery.
- ▶ 1 year in treatment. All negative testing.
- ▶ Varies bup dose between 24–32mg QD, depending on pain level. No other pain meds but ibuprophen 600mg/qd prn.

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Buprenorphine as an Analgesic (W. Ling, M.D.)

- ▶ 20–50 times the potency of morphine. Analgesia not compromised by ceiling effect, as with respiratory depression. Analgesic action up to 8 hrs.
- ▶ Bup plus full mu agonists in analgesic doses show additive or synergistic effects. Only at supra-analgesic doses does antagonism appear. So bup seems to be a partial blocker like methadone.

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Buprenorphine: An Effective Psychotropic?

- ▶ Buprenorphine and methadone a number of other neuromodulatory actions with significant psychiatric effects:
 1. NMDA receptor antagonism reduces development of tolerance and blocks glutamate, the major excitatory neurotransmitter of the brain, producing anti-anxiety and calming effects
 2. SSRI properties giving potential anti-anxiety and anti-depressant effects
 3. MAOI action further augments anti-depressant effects.
- ▶ **Given the above, buprenorphine may be treating mental health problems in addition to treating opiate addiction.**

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Summary

- ▶ Buprenorphine is well tolerated and effective both youth and adults in a flexible maintenance model
- ▶ Retention is very good.
- ▶ Maximum doses used were in the 24–32mg/qd for 50% of the population
- ▶ Chronic pain and mental illness were common in this population. Analgesic and psychotropic effects of buprenorphine may be an important part of its efficacy.

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