

Opioid Dependence and Buprenorphine: An Update

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Opioid Use Disorders: Overview

- Historical Information
- Epidemiology
- Neurobiology
- Treatment modalities for OUD
- Current Concerns

Historical Perspective

- Late 19th and early 20th century:
- Civil war: introduction of hypodermic needle and morphine analgesia
- Many women/higher income Americans: high rates of morphine use leading to addiction. Most introduced to the drugs by their physicians for menstrual pain and menopausal symptoms.
- 20th century: U.S. adopted severe policies toward addiction; criminalized addiction
- Harrison Act (1914): prohibition on prescription of narcotics (opiates) to addicts.
 - Many physicians prosecuted
 - Physicians fear opioid prescribing
 - Increased drug trafficking and crime associated with opiate and cocaine abuse

Historical Perspective

- 1974: first methadone maintenance programs for opioid addiction; currently serve approximately 280,000 patients
- Large increases in prescription opioid addiction starting in late 1990s to present
 - In May 2007, Purdue Frederick, a subsidiary of Norwalk, Conn.-based Purdue Pharma L.P., pleaded guilty to felony misbranding of Oxycontin related to its addictive risks as part of a settlement with federal prosecutors. \$634.5 million in fines paid by Purdue
 - Joint Commission: Pain Management Standards Jan 1, 2001
- U.S.: 4.6% of world's population; consumes 80% of world opioid supplies
- U.S.: consumes 99% of world's hydrocodone supply

Historical Perspective

- As use of opioid analgesics increases, we see large increases in adverse events, deaths, and addiction
- To provide a means of treating the large growth in individuals with opioid dependence:
 - DATA 2000: Office-based treatment of opioid dependence:

Use of medications approved by the FDA for use in maintenance or detoxification treatment of opioid dependence

Schedule III, IV, or V

- Buprenorphine products are the first opioids specifically approved by FDA for office-based treatment of opioid dependence

Safety, Efficacy and Decreasing Diversion

Government concerned with balance needed that would increase access to treatment but which must also address concerns with increased abuse and diversion potential

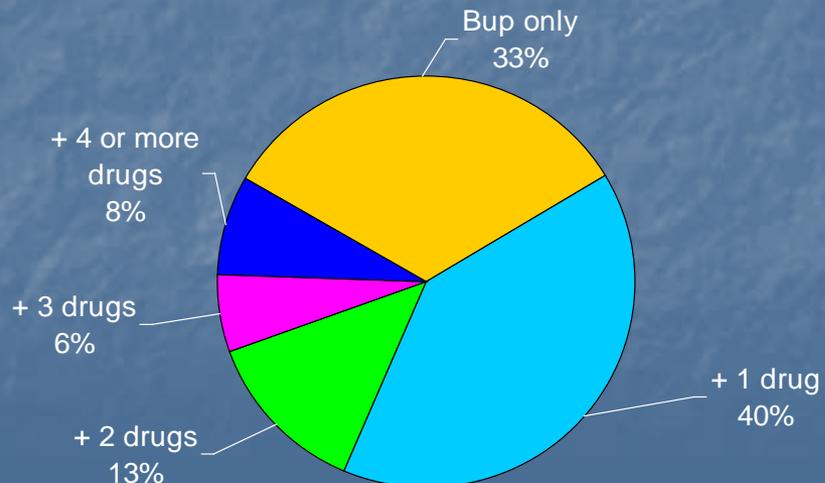
To address these concerns:

- Development of a partial agonist with less opioid effects than full agonists such as heroin or methadone
- Inclusion of naloxone to diminish risk of injection abuse
- Requirement of physician training and waiver to prescribe
- Restriction to only waived physicians; other prescribers cannot provide
- Limit on numbers of patients
- Limit on how much drug can be prescribed

Concerns: Diversion

- Physicians are aware that buprenorphine diversion is increasing: Actions:
- Frequent office visits
- No multimonth scrips
- Drug Screening

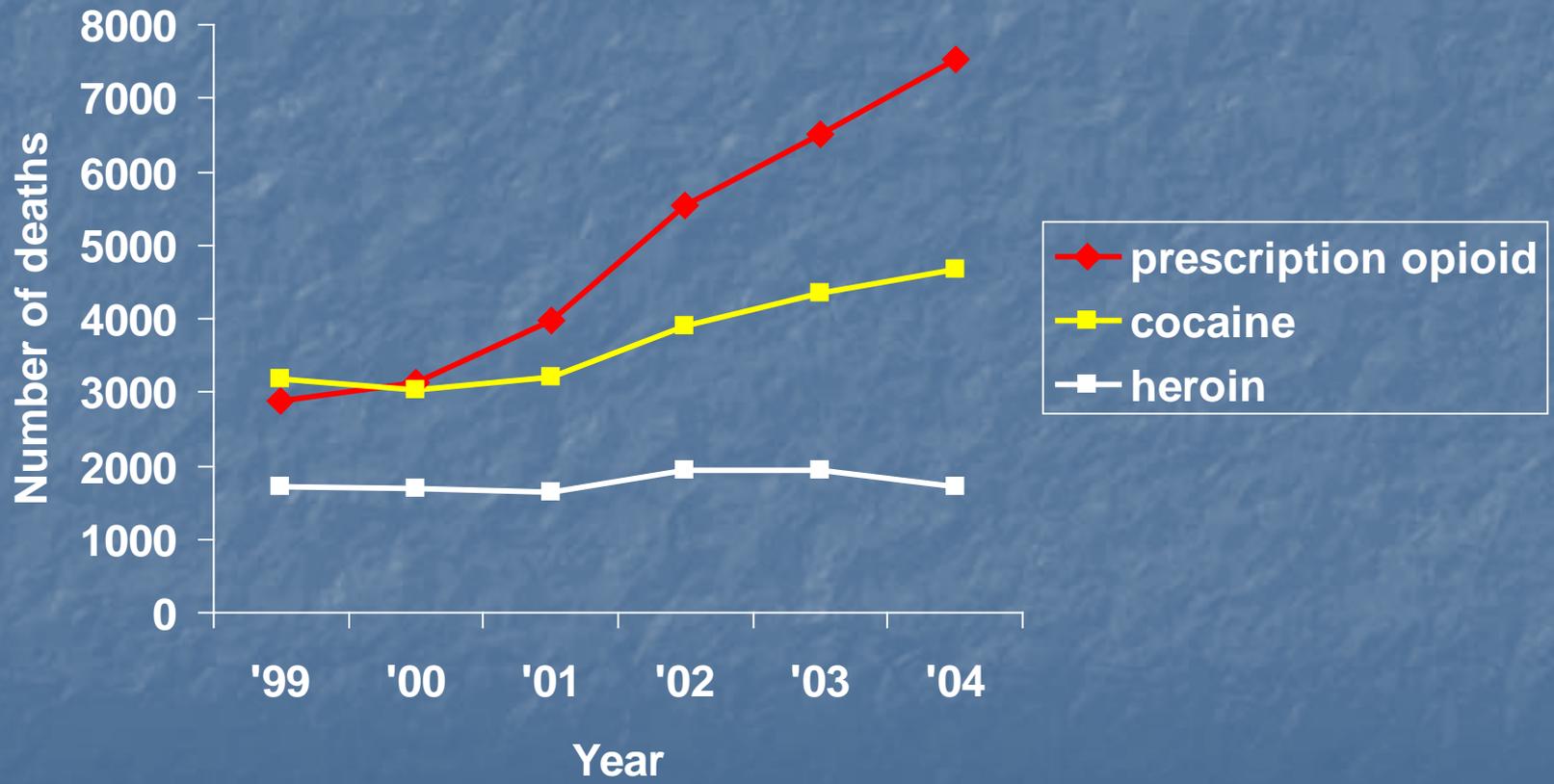
Nonmedical Use ED Visits Involving Buprenorphine Alone and with Other Drugs – 2008 (SAMHSA/CSAT)



Buprenorphine-related Accidental Ingestions – Who are the Patients?

- In 495 out of 500 accidental ingestion visits, the patients were ages 0-5
- In comparison, oxycodone had only 353 accidental ingestions for ages 0-5—yet there were 10x as many oxycodone visits in 2008

Unintentional drug overdose deaths by specific drug type, United States 1999-2004



Why are We Seeing Large Increases in Opioid Misuse, Abuse and Addiction?

- Increasing use of opioids to treat chronic pain
- Published rates of abuse and/or addiction in chronic pain populations as high as 26%

Fishbain et al. Clin J Pain, 1992

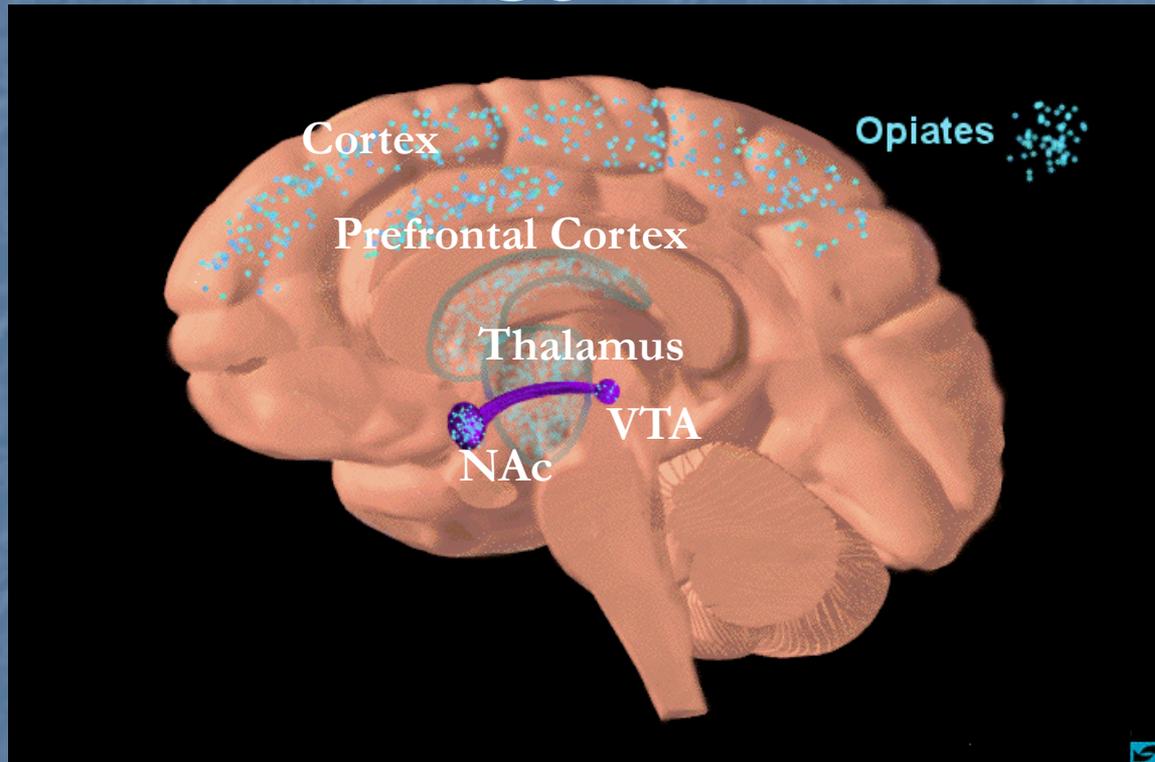
Physicians are Required to Treat Pain

Model Policy for the Use of Controlled Substances for the Treatment of Pain*

- Pain management integral to medical practice
- Opioids may be necessary
- Physicians will not be sanctioned for prescribing opioids for legitimate medical purposes
- Undertreatment of pain will be considered a deviation from the standard of care
- Use of opioids for purposes other than analgesia threaten individuals and society
- Physicians have a responsibility to minimize abuse and diversion

*Federation of State Medical Boards, 2003

Etiology of Opioid Abuse: Neurobiology of Addiction



Mu opioid receptors are distributed widely in the brain. While binding in the thalamus produces analgesia, binding in the cortex produces impaired thinking/balance; binding in prefrontal cortex contributes to an individual's decision about how important use of the drug is to him/her (salient value of the cue) and ventral tegmental area (VTA)/nucleus accumbens (NAc) is associated with euphoria that some experience (i.e. the "high").

How Do We Help Physicians to Know Who Might be an Addict?

● Good Practice

- Thorough history and physical examination
- Check Prescription Monitoring Programs
- Check urine drug screen initially and periodically thereafter
- Speak with family/S.O. if available
- Consider Risk/Benefit of chronic opioid therapy
- Consider non-opioid options (especially in those with substance abuse history)
- Reassess frequently and modify treatment plan as indicated
- Documentation

What to do When the Patient has an Opioid Use Disorder

Therapeutic Options:

Combination of medication treatment plus psychosocial/psychotherapeutic interventions:

- Inpatient (usually medical withdrawal; short term pharmacotherapy) followed by:
- Residential/intensive outpatient
- Individual/Group Drug Counseling

Medication Treatments (Short or Long Term)

Antagonists

- Naltrexone

■ Agonists

- Methadone maintenance (especially if ongoing opioid analgesia needed)
- Buprenorphine

Opioid Dependence Maintenance Therapy: Agonist Treatment

What is agonist therapy?

Use of a ***long acting*** medication in the same class as the abused drug (once daily dosing)

- Prevention of Withdrawal Syndrome
- Induction of Tolerance
- What agonist therapy is not:
 - Substitution of “one addiction for another”

Long-Acting Opioid Treatment Options: Buprenorphine

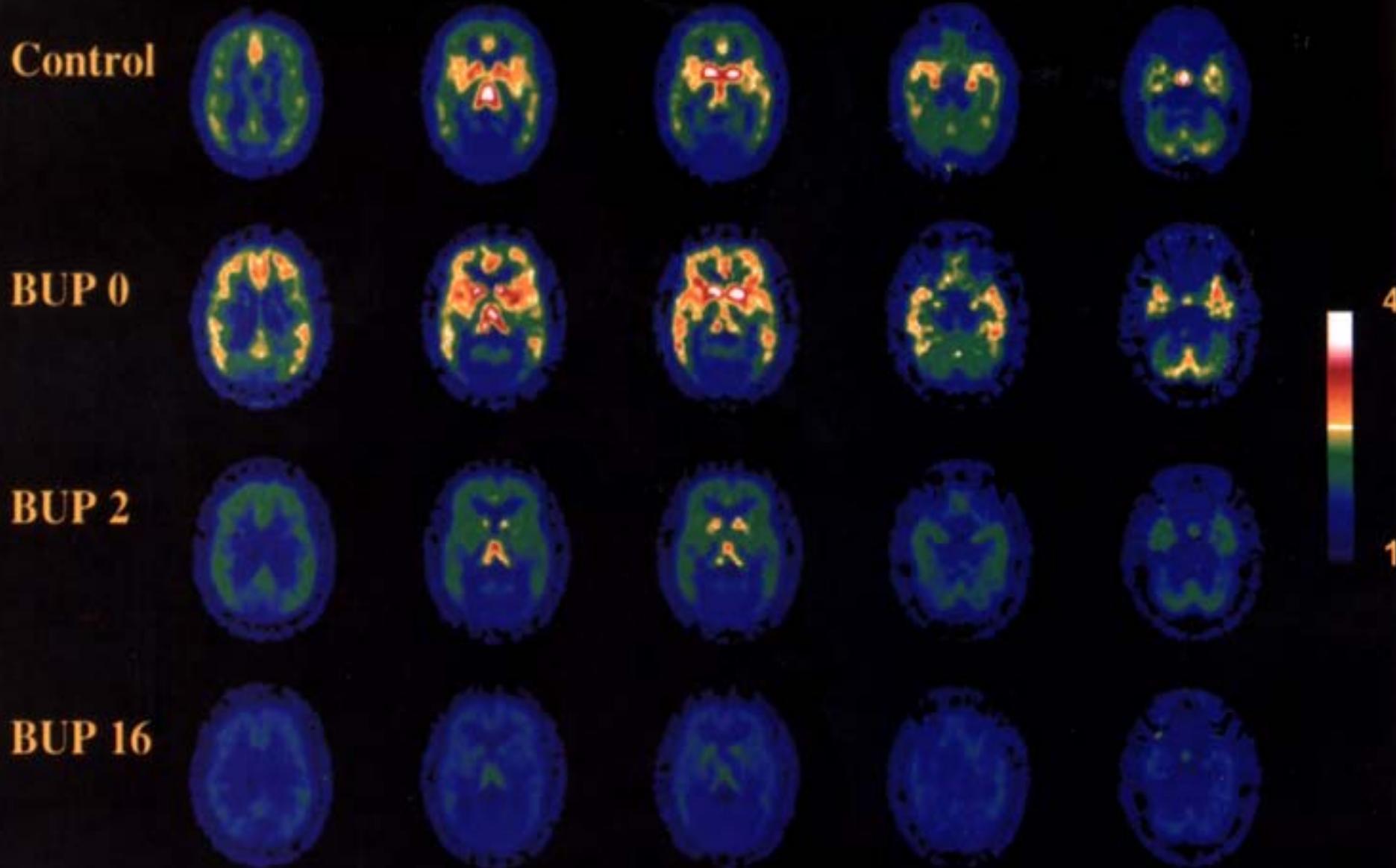
- Schedule III
- Can be prescribed from physician offices
- Safer in overdose
- Recent studies show similar efficacy as methadone in pregnancy
- Dosing may be daily, every other day or three times weekly
- Tablets and rapidly dissolving strip now available
- Always should include supportive psychosocial services—not just prescription for drug
- Need Waiver to prescribe which requires physicians to obtain additional training in addiction medicine

Opioid Dependence Maintenance Therapy

Benefits:

- Lifestyle stabilization
- Improved health and nutritional status
- Decrease in justice system involvement
- Employment
- Decrease in injection drug use/shared syringes

Mu Opioid Receptor Binding Potential



Physicians' Clinical Support System-Buprenorphine

Sponsored by Center for Substance Abuse Treatment/SAMHSA

PCSS-B Training

An Educational Resource for Those Treating
Patients with Opioid Dependence

Ask a clinical question...

- Get a response from an expert PCSS mentor
- 888-5pcss-b-4u (Buprenorphine)

From www.PCSSB.org...

- download clinical tools, helpful forms and concise guidances on specific questions regarding opioid dependence, use of buprenorphine, information on training and mentoring

Why is All of This Important?

- Opioid use disorders affect significant numbers of our population
- Addiction is a chronic, relapsing disease that is likely to recur
- Effective pharmacotherapies are available
- Addiction negatively impacts other illnesses present in the patient, resulting in toxicities, adverse events, and deaths
- We have over 2 million opioid addicted patients in the U.S. and only 280,000 methadone maintenance treatment slots; we must encourage office-based practitioners to treat the remaining 1.7 million in need of treatment

BUPRENORPHINE PRESCRIPTION LOG

(to be kept in physician master file of buprenorphine-treated patients)

Pt. Number	Date	Pt Name/ID	Medication/Dose	#Pills/Refills	Date Discharged
1.					
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