Continuing Buprenorphine/Naloxone With Counseling Is More Effective Than Detoxification With Counseling for 15-21 Year Old Opioid Addicts

University of Pennsylvania

And the

National Institute on Drug Abuse
Lead Investigator:
George Woody, M.D.
Dept. of Psychiatry,
University of Pennsylvania

Project Director
Sabrina Poole

Penn Collaborators
Robert Forman, PhD
Laura McNicholas, MD
Cynthia Clark, RNP
Howard Moss, MD
Paul Fudala, PhD

Biostatisticians:
Kevin Lynch, PhD
Karen Dugosh, PhD

NIDA Project Collaborator:
Jack Blaine, M.D.

DataManager:
Chris Petro, B.S.
Site Investigators

- Mountain Manor: Geetha Subramaniam, MD
- Duke Addictions Program: Len Handlesman, MD / Ashwin Patkar, MD
- University of New Mexico: Michael Bogenschutz, MD (2 sites: Albuquerque & Ayundantes)
- Brandywine Counseling: Joseph Glick, MD
- Mercy Hospital/ Portland ME: Marc Publicker, MD
Background

- Increase in adolescent/young adult opioid use and addiction

- 2006 national survey showed Rx opioids first drugs used illicitly, followed by marijuana

- Most rx options for young, recently-addicted patients are abstinence-oriented (including abstinence from prescribed meds)
  - Entire rx system shifted to outpatient
  - Little availability of residential care
Screening Assent/Consent

Eligible

Not Eligible

End of process

Urn Randomization:
(within clinics)

DETOX
Detox over 2 wks
(N = 80)

All Get Psycho/ Soc Rx
2x weekly for 12 Wks

BUPNAL
Rx 12 wks; taper over wks 9-12
(N = 74)

Evaluations: weekly X 12 wks
Comprehensive @ 4, 8, 12, 24, 36 and 52 wks
Outcomes

- **Primary:** opioid + urines at weeks 4, 8, 12

- **Secondary:**
  - Dropout from assigned rx condition
  - Received methadone, bup, detoxification or rehab outside assigned rx condition
  - HIV risk reduction
  - Opioid + urines at 6, 9 & 12 months
  - Other drug use; overall adjustment
Number Consented/ Number Randomized

- Consented: 229
- Randomized: 154; Analysis 152
- 2 ss dropped (WPW & screen failure)

Notes:
- Approximately 7 < 18 yrs of age interested but declined when told parents had to consent
- Others could not arrange transportation for 5-7 days/ week dosing
Demographics: No Sig Grp Dffs

- **Male**: 90 (58%)
- **Race**
  - Caucasian: 114 (74%)
  - African-American: 3 (2%)
  - Hispanic: 38 (25%)
- **Empl/ School** (Past 6 months)
  - School: 28%
  - Working/ worked: 72%
- **Hepatitis C +**: 29 (19%)
Demographics (overall/ cont.)

- **Major problem**
  - Heroin 84 (55%)  
  - Opiates/ analgesics 53 (35%)  
  - Polydrug 16 (10%)  

- **Average Years Addicted** 2

- **Mean age** 19.1 (SD: 1.49)

- **<18 yrs** 27 ss (1 was 15)
Opioid Positive Urines: Missing = Missing

**Baseline** Week 4 Week 8 Week 12

Group Effect = p < .001
Time Effect = NS
Time X Group = p < .07
Opioid Positive Urines:

Missing = Positive

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Week 4</th>
<th>Week 8</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group Effect = p < .0001
Time Effect = NS
Time X Group = p < .05
Remaining In Assigned Treatment Condition at Week 12

- **Definition:** not having period of 14 days or more when failed to see individual or group counsel, or enrolled in non-study treatment

- **About 4 times more retained in BUP (50% vs. 12%)**
<table>
<thead>
<tr>
<th></th>
<th>Wk 4</th>
<th>Wk 8</th>
<th>Wk 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DTX</strong></td>
<td>37%</td>
<td>26%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>BUP</strong></td>
<td>21%</td>
<td>13%</td>
<td>16%</td>
</tr>
</tbody>
</table>

# Patients Treated Outside Study In Weeks 1-12

**DTX** = 27

**BUP** = 3
Opioid Positive Urine at Months 6, 9, 12

[Graph showing lines for DETOX, DETOX (imputed), BUP, and BUP (imputed)]
% Reporting possible drug-related side effects

- Headaches most common (20-23%)
- All other AE’s less than 10%
- 4/83 who were hepatitis C - at baseline, became + at wk 12
  - 4.8% conversion in 12 wks
- No ECG or liver changes clearly attributable to bup
Summary

• Longer-term bup use was safe & effective
• Difficult to recruit, but conditions more stringent than usual practice
  • Dosing 5-7 days/wk = transportation problems
  • Parental consent if <18 caused some to decline
  • Multiple assessments
  • Probably easier to enroll and retain under non-research/usual practice conditions
Summary (cont)

**DETOX:**
- Higher dropout;
- More opioid+ urines
- Bup ends = opioid use increases
- Though mean age 19.1, addicted 2 years, course appeared similar to adults
Potentially life-saving as data from France, Finland, Czech Republic show marked reduction in overdose deaths associated with use of bup

Patients can enter abstinence-oriented rx any time if indicated and possible

Resistance expected from specialty programs (like doing cognitive therapy in a psychoanalytic institute)
BUPRENORPHINE/NALOXONE-
FACILITATED REHABILITATION
FOR OPIOID DEPENDENT
ADOLESCENTS/YOUNG ADULTS

Thanks to NIDA and Participating Program Staff for Sustained Effort Over 4 Years!
Acknowledgements

Cindy Voss, Angie Wu, Haley Brown, Paul Harrell, Tina Brown, Shannon Garrett, Peter Chodinicki, Phillip Clemmey, Marc Fishman, MD, Maxine Stitzer, PhD (Mid-Atlantic Node; Mountain Manor Treatment Center); Edward McCarthy, MD, Burma Wilkins, Thomas Allan, Elizabeth Clay, Christine Evans, Sarah Braun, Christopher Coose, Sally Van Sneyson, Lisa DiPietro, Hilary Smith Connery, MD, Jennifer Sharpe Potter, PhD, MPH, Scott E. Provost, MSW, Jennifer Wilson, David Erickson, Roger Weiss, MD (Northern New England Node; Mercy Hospital); Karen McCain, NP, Tammy Day, BSN (North Carolina Node; Duke University Addictions Program); Patrick Abbott, MD, Robert Kushner, MD, Wendy Johnson, Roberta Chavez, Craig Pacheco, Meredith Pampell, Adam Rosen, Kim Romero, Jafed Gonzalez, Leonard Pena, Rena Treacher, Robert Hyde, Violanda Nunez, Cynthia Duchesne, Paolo Guidici, Amber Martinez, William Miller, PhD (Southwest Node; Albuquerque and Ayundantes Addiction Treatment Programs); Janice Sneed, RN, Sally Allshouse (Delaware Valley Node; Brandywine Counseling).

NIDA grants #U10-DA 13043 and K05-DA 17009 (Dr. Woody); U10 DA13034 Dr. Stitzer); K12 DA 000357 (Dr. Subramaniam); U10 DA15831 (Dr. Weiss)