Maine Medical Center
Department of Emergency Medicine
Journal Club Summary Template

Date:11/18/21	**Presenter Name: Zach Tillett**

Article Citation:
D'Onofrio G, O'Connor PG, Pantalon MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. *JAMA*. 2015;313(16):1636-1644. doi:10.1001/jama.2015.3474

Country(ies): US

Funding Source(s): (NIDA), and Reckitt-Benckiser Pharmaceuticals provided buprenorphine

Purpose

Research Question(s):
Is Buprenorphine provided in the ED or at Discharge better than referral or a brief intervention(motivational interview) and a referral

☐ None Stated

Hypotheses:
If buprenorphine was prescribed in the ED than it would lead to more involvement in treatment at 30 days.

☐ None Stated

Study Purpose: Test efficacy of 1. Referral for treatment 2. Brief intervention + referral 3. Brief treatment(Buprenorphine)/ed intervention

Methods

Study Design: RCT

Outcome(s) *[or Dependent Variable]:*
Engagement in treatment at 30 days

Intervention *[or Independent Variable]:*
Buprenorphine + referral vs referral - intervention (motivational interview) and a referral

Ethics Review: ☐ IRB Review ☐ IACUC Review ☐ Other: ☐ None Stated

Research Setting: Academic Center - Large

Study Subjects: ED patients, over 18, active opioid users

Inclusion Criteria: Over 18, scored greater than a 3 on MINI scale

Exclusion Criteria: Minor, non–English speaking, critically ill, unable to communicate due to dementia or psychosis, suicidal, or in police custody. Actively in treatment.

Study Interventions:

1. Screening referral – researcher gave a list of places, numbers – some information on which insurances worked where -> residential to outpatient and outpatient resources including buprenorphine prescribing MDs
2. a 10- to 15-minute manual-driven motivational interview then received screening referral, but with closer more in-depth review then first group and would even help arrange transport, helped with insurance etc
3. Interview then if in moderate to severe withdrawals they got - had adequate medication until a scheduled appointment in the hospital's primary care center, within 72 hours. Buprenorphine doses were 8mg on day 1 and 16 mg on days 2 and 3. Also got referral and brief intervention.

Study Groups:

1. Referral for treatment 2. Brief intervention + referral 3. Brief treatment (Buprenorphine)/ed intervention

Instruments/Measures Used: MINI for Opioids, 20 questions survey on health, HIV risky behavior survey, survey on frequency of use, UDS

Data Collection:
Engagement in treatment at 30 days.
HIV risky behavior survey
Survey on frequency of use – days per week

Data Analysis:

***A priori* sample size calculation?** ☐ Yes ☐ No ☐ Not Described ☐ N/A

Statistical analyses used: Baseline characteristic comparison

Adjustment for potential confounders? ☐ Yes ☐ No ☐ Not Described ☐ N/A
If yes, list:

Results

Study participants:

Primary Outcome
-Eighty-nine of 114 patients (78%; 95% CI, 70%-85%) in the buprenorphine group were engaged in treatment at significantly higher rates than the 38 of 102 patients (37%; 95% CI, 28%-47%) n the referral group or 50 of 111 patients (45%; 95%CI, 36%-54%) in the brief intervention group (P < .001).
2ndary outcomes The buprenorphine group reported greater reductions in the mean number of days of illicit opioid use per week—from 5.4 days (95% CI, 5.1-5.7) to 0.9 days (95% CI, 0.5- 1.3) than did the referral group, which decreased from 5.4 days (95% CI, 5.1-5.7) to 2.3 days (95% CI, 1.7-3.0) and the brief intervention group, which

decreased from 5.6 days (95% CI, 5.3-5.9) to 2.4 (95% CI, 1.8-3.0). Patients in all groups reduced their illicit opioid use over time (P < .001), the between group
(P < .001)

Brief answers to research questions *[key findings]:*

Buprenorphine is better than referral or brief intervention and referral for reducing opioid use at 30 days.

Additional findings:

The buprenorphine group reported greater reductions number of days of illicit opioid use per week
All groups reduced opioids over time
Patients in all 3 groups reported significantly reduced HIV risks but not statistically different among groups
No difference across treatment groups in seeking services out patient, less inpatient in buprenorphine group

Limitations:

Small study
80% of study patients had health insurance
30 days is really quite a short period of time

Clinical Implications

Applicable? Yes, however the amount of participants insured is an issue and so is the size of the study.
Feasible? Very
Clinically relevant? Very

Comments:

Level of evidence generated from this study

☐ Ia: evidence obtained from meta-analysis of randomized controlled trials
X Ib: evidence obtained from at least one randomized controlled trial
☐ IIa: evidence obtained from at least one well-designed, controlled study without randomization
☐ IIb: evidence obtained from at least one other type of well-designed quasi-experimental study
☐ III: evidence obtained from a well-designed, non-experimental study
☐ IV: expert committee reports; expert opinion; case study; case report

Additional Comments/Discussion/Notes