Starting Injectable Naltrexone During Opioid Detoxification: Linkage to Primary Care

Megan M. Risi[1,2], Genie L. Bailey[2,3], MD, Micah T. Conti[1,2], Jessica N. Flori[1,2], Bradley J. Anderson[1], Michael D. Stein[1,3]

[1]General Medicine Research Unit, Butler Hospital, Providence, RI; [2]Stanley Street Treatment and Resources, Inc, Fall River, MA; [3]Departments of Medicine and Health Services, Policy and Practice, Warren Alpert Medical School of Brown University, Providence, RI

INTRODUCTION

Opioid use disorders commonly require ongoing medication-assisted treatment (MAT) to reduce relapse.

MAT options include full agonist (methadone), partial agonist (buprenorphine) and antagonist (naltrexone) agents.

Traditional oral naltrexone has been shown to have low adherence rates in the opioid addicted population. A 30-day dose in a single injection of extended-release naltrexone (XR-NTX) was developed to address these low adherence rates.

XR-NTX has no abuse or overdose potential, no diversion potential, can be stopped without withdrawal effects, does not require special waivers or specific licenses to prescribe or dispense, and has efficacy in patients across a range of demographic and severity characteristics.[1-3]

XR-NTX has been associated with few opioid-related and non-opioid related hospitalizations, and total healthcare costs 49% lower than methadone[4,5], suggesting that despite its current high cost, its use is likely to expand.

Our aim was to examine the follow-up rates of persons who received an initial XR-NTX during an extended inpatient detoxification and were referred to a primary care where XR-NXT can be administered long-term.

METHOD

We reviewed the electronic health records of 62 consecutive opioid dependent adults who received an initial injection of XR-NTX while inpatient at Stanley Street Treatment and Resources, Inc. (SSTAR) in Fall River, Massachusetts, from March 2013 to August 2015 and were referred to the SSTAR primary care health center for follow-up care.

SSTAR's detoxification program has 38 beds and is a 24-hour medically supervised treatment facility that provides evaluation and withdrawal management using a methadone taper protocol (as well as individual and group counseling and case management).

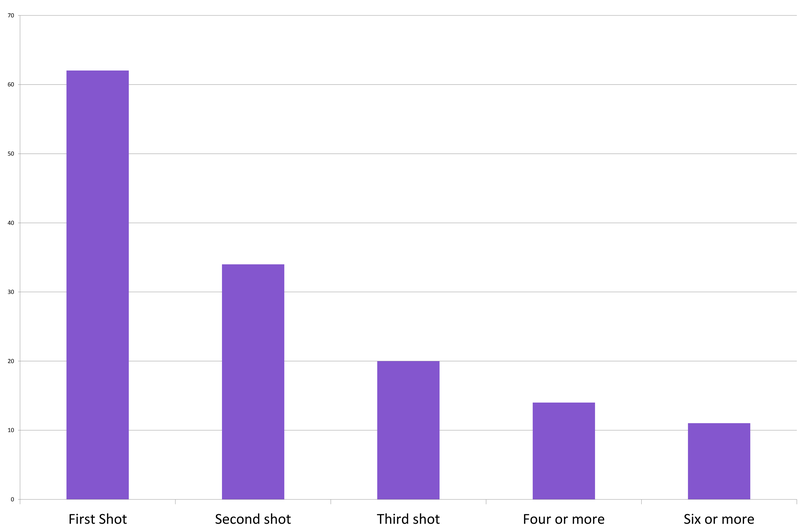
During the standard 5-day detoxification, persons interested in XR-NTX speak with a case manager about insurance coverage for XR-NTX and aftercare planning. Persons who decide to receive XR-NTX must remain at SSTAR in a step-down residential care unit for ten days after their last methadone dose.

Prior to receiving a shot of XR-NTX, clients receive an oral dose of naltrexone (25 mg), and if they show no withdrawal symptoms, they receive an additional 25 mg one hour later. If again there are no symptoms, XR-NTX (380mg) is delivered 90 minutes later. After receipt of injection, patient can be discharged.

Measures

Demographic information, drug use and treatment history, and aftercare planning were assessed. Demographic sample descriptors included age, gender, race/ethnicity, marital status, employment (part or full-time vs. unemployed), living with a child under 14 years old, homelessness (any nights on street or in a shelter in the prior 90 days), years of education, and having previously been seen by a primary care physician at SSTAR. We assessed "What is your legal status?" with response options: none, on probation, on parole, on pretrial release. Drug use variables including years of opiate use, injection drug use in the 30 days prior to this detoxification, overdose in the past year, and any cocaine, alcohol, marijuana or benzodiazepine use in the prior 30 days.

Participants reported if they had been in opioid detoxification in the past year, and if they had ever been prescribed methadone or buprenorphine or XR-NTX. Finally, we assessed whether participants were discharged from SSTAR detoxification with aftercare plans for residential treatment, intensive outpatient treatment, or other group treatment.



RESULTS

Participants averaged 32.4 (±7.8) years of age, 90.3% were non-Latino Caucasian. 24.2% were involved in the legal system, 35.5% were homeless, 21.3% reported a drug overdose in the last year, and 53.2% had been in opioid detoxification within the last year. No demographic, substance use behavior, treatment history, or aftercare plan variables were associated with receipt of a second injection ($p<.20$). Of the 62 participants referred to the SSTAR health center, 34 (54.8%) followed up with the health center to receive their second XR-NTX injection the next month. Twenty of these persons (32.2% of those given first injection) received at least a third XR-NTX injection, 14 (22.6%) had four or more injections, and 11 (17.7%) had six or more injections. These retention rates are comparable to rates seen with buprenorphine maintenance.[6,7]

CONCLUSION

54.8% successfully received a second injection in a primary care setting at the scheduled follow-up one month later.

No variables were associated with continued XR-NTX treatment, which is in line with previous clinical trials.[1,3]

There is growing interest in XR-NTX treatment among OUD populations, particularly among daily heroin users.[8]

Transition from inpatient to outpatient care is a challenge for all persons with chronic medical or psychiatric illness. Continuing treatment is critical to long-term opioid abstinence in persons initiating any form of treatment, and linkage between care sites is of great interest to providers as access to still relatively new XR-NTX expands.

Future studies examining the reasons for XR-NTX drop-out will be important to developing and testing psychosocial therapies that may improve early linkage to primary care and longer term treatment success.

REFERENCES

1. Krupitsky, E., Nunes, E. V., Ling, W., Illeperuma, A., Gastfriend, D. R., & Silverman, B. L. (2011). Injectable extended-release naltrexone for opioid dependence: A doubleblind, placebo-controlled, multicentre randomised trial. Lancet, 377(9776), 1506–1513. http://dx.doi.org/10.1016/S0140-6736(11)60358-9. **2**. Bart, G. (2012). Maintenance medication for opiate addiction: The foundation of recovery. Journal of Addictive Diseases, 31(3), 207–225. http://dx.doi.org/10.1080/10550887.2012.694598. **3**. Nunes, E. V., Rothenberg, J. L., Sullivan, M. A., Carpenter, K. M., & Kleber, H. D. (2006). Behavioral therapy to augment oral naltrexone for opioid dependence: A ceiling on effectiveness? The American Journal of Drug and Alcohol Abuse, 32(4), 503–517. http:// dx.doi.org/10.1080/00952990600918973. **4**. Hartung, D. M., McCarty, D., Fu, R., Wiest, K., Chalk, M., & Gastfriend, D. R. (2014). Extended-release naltrexone for alcohol and opioid dependence: A meta-analysis of healthcare utilization studies. Journal of Substance Abuse Treatment, 47(2), 113–121. http://dx.doi.org/10.1016/j.jsat.2014.03.007. **5**. Baser, O., Chalk, M., Fiellin, D. A., & Gastfriend, D. R. (2011). Cost and utilization outcomes of opioid-dependence treatments. The American Journal of Managed Care, 17(Suppl. 8), S235–S248 **6**. Gryczynski, J., Mitchell, S. G., Jaffe, J. H., O'Grady, K. E., Olsen, Y. K., & Schwartz, R. P. (2014). Leaving buprenorphine treatment: Patients' reasons for cessation of care. Journal of Substance Abuse Treatment, 46(3), 356–361. http://dx.doi.org/10.1016/j.jsat.2013.10. 004. **7**. Mattick, R. P., Breen, C., Kimber, J., & Davoli, M. (2014). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database of Systematic Reviews, 2, CD002207. http://dx.doi.org/10.1002/14651858.CD002207. pub4 **8**. Ahamad, K., Milloy, M. J., Nguyen, P., Uhlmann, S., Johnson, C., Korthuis, T. P., ... Wood, E. (2015). Factors associated with willingness to take extended release naltrexone among injection drug users. Addiction Science & Clinical Practice, 10, 12. http://dx. doi.org/10.1186/s13722-015-0034-5.

DISCLOSURES

Dr. Genie L. Bailey's institution has received grant support from the National Institute on Drug Abuse; Titan Pharmaceuticals, Inc.; BioDelivery Sciences International, Inc. (BDSI); and Orexo. She has received study drug-in kind from Reckitt-Benckiser (Indivior). Dr. Bailey has received travel support from Titan Pharmaceuticals and BDSI and Camurus AB. She is on the speakers bureau of BSDI.