

# **A Systematic Review of Extended-Release Pharmacotherapies for Substance Use Disorders in Incarcerated Populations**

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**Introduction / Issues:** Many people entering the Criminal Justice System (CJS) have a history of harmful substance use. For these individuals, incarceration and the period shortly after release have been shown to be high risk for relapse, overdose and transmission of blood-borne viruses. Pharmacotherapy has an important role to play in treating substance use disorders and extended-release (XR) formulations have been suggested as a method to bridge the many treatment complexities for this population. Two XR formulations are available in several jurisdictions: XR-Buprenorphine, an opioid agonist used for treating opioid use disorder, and XR-Naltrexone, an opioid antagonist used for both alcohol and opioid use disorder.

**Method / Approach:** We conducted a systematic review to report on the substance use and recidivism effects following administration of XR-Buprenorphine and XR-Naltrexone for incarcerated or recently (<3 months) released participants.

**Key Findings OR Results:** 24 studies reported on XR-Naltrexone or XR-Buprenorphine. The overall quality was low, with largely moderate- high risk of bias scores and considerable clinical and methodological diversity across studies. There was some evidence to support XR-buprenorphine improving substance use outcomes and treatment retention rates, but there was very sparse evidence for XR-Naltrexone. Low numbers of participants, and hence low numbers of overdoses, limited the ability to draw meaningful conclusions regarding overdose rates. There was no convincing evidence demonstrating a reduction in recidivism on either medication. The reporting on adverse events across papers was highly variable, meaning that overall conclusions could not be reached.

**Discussions and Conclusions:** There has been a lack of high-quality research published in this field to date which limits the ability to draw conclusions on effect.

**Implications for Practice or Policy:** Greater investment on research examining substance use treatment in the CJS will allow for a greater understanding of the utility of XR medications.

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