



Community studies of Long-Acting Buprenorphine injections for opioid dependence



UNSW
SYDNEY

Australia's
Global
University

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Disclosures

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Depot buprenorphine injections

Rationale:

- Less need for frequent attendance at clinic / pharmacy
- Less inconvenience and costs for clients and service providers
- Better adherence to medication (no missed doses) and better treatment outcomes
- Less diversion of medication
- Reduced capacity for patient interaction with the medication
- Available PBS-listed medications:
 - 1) Sublocade (Indivior) – monthly SC injection by HCP
 - 2) Buvidal (Camurus) – weekly or monthly SC injection by HCP

Objectives of CoLAB study

- To **document** and **evaluate the implementation** of monthly BPN injections in different community treatment settings (barriers and facilitators).
- To **examine key client outcomes**, including impacts on treatment engagement, retention and patient satisfaction.

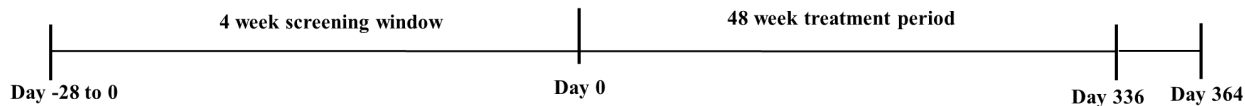
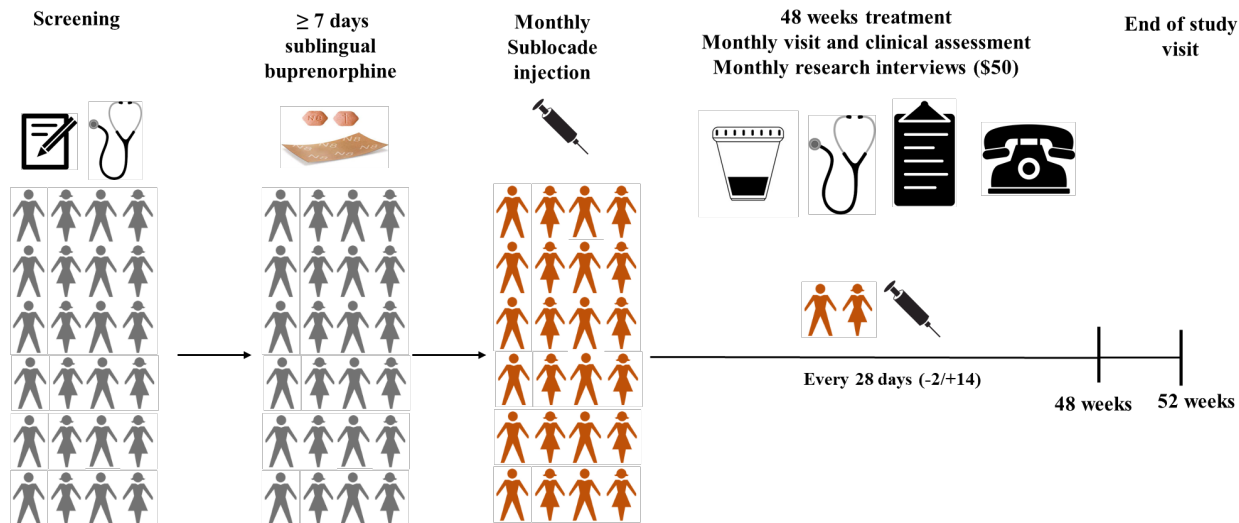
Primary Outcome:

- Proportion of participants retained in treatment at 48 weeks following initiation of monthly depot buprenorphine injections. Treatment retention is defined as remaining on active depot buprenorphine medication at 48 weeks

Secondary Objectives

1. To evaluate opioid craving, withdrawal, opioid and other substance use
2. To evaluate utilisation of buprenorphine medication during the study, including Sublocade dose variation, adherence with dosing schedule (e.g. timing of doses, missed doses) and dose supplementation (additional sublingual buprenorphine)
3. To evaluate treatment safety and tolerability
4. To describe patient-reported changes to health and social well-being
5. To evaluate demographic, drug use and treatment factors associated with treatment outcomes (e.g. retention)
6. To evaluate patient-reported experience of treatment
7. To examine treatment retention at 24 weeks
8. To document the cost of treatment at different settings

Study design – Main Study



Study design – Extension phase

Additional 48 weeks of follow up

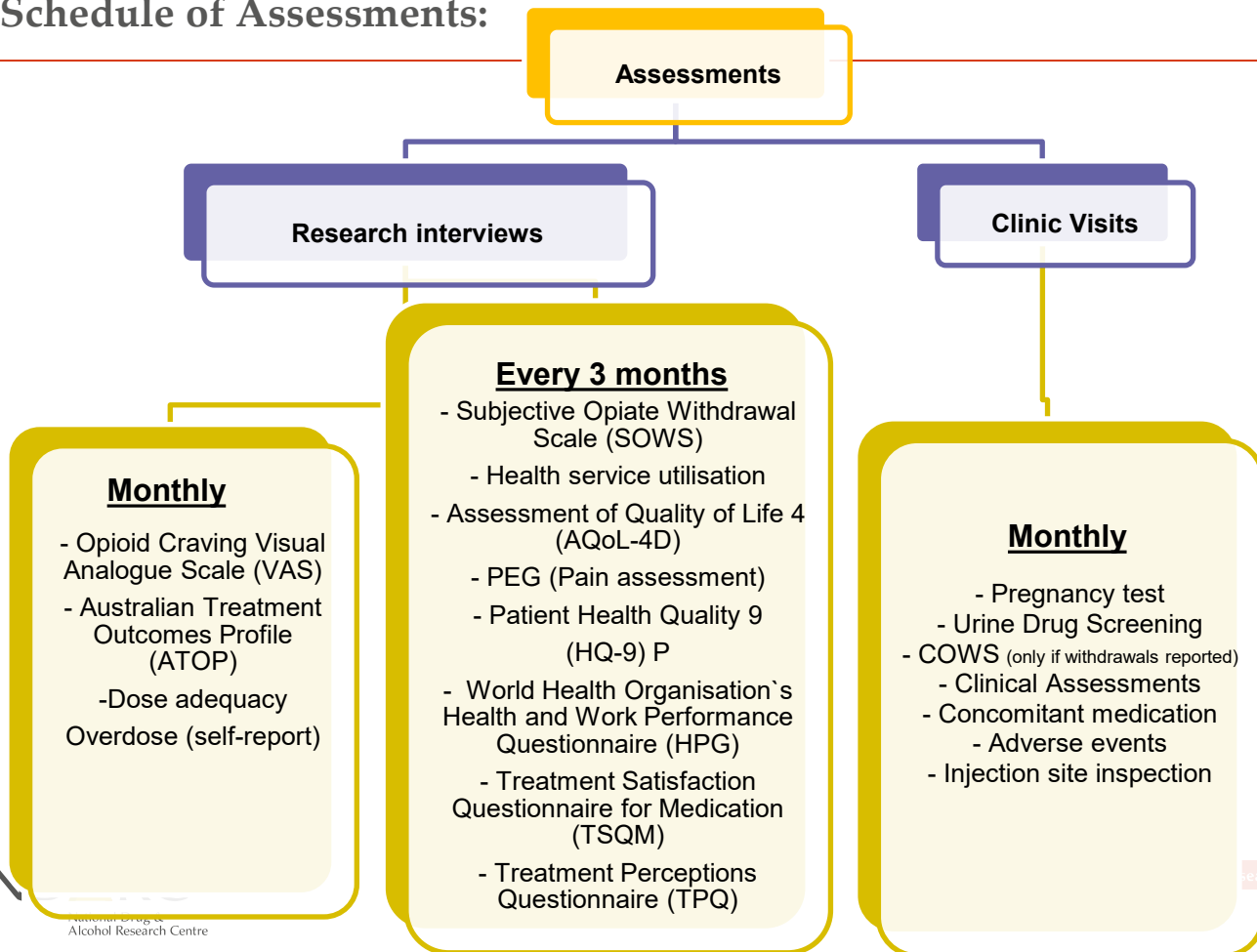
- Clinic visits – every 6 months
- Monthly research interviews (\$50) – every 2 months

End of Extension study

Consent



Schedule of Assessments:



CoLAB network – 7 sites



Participants

Enrolled
N = 100

- Victoria Primary Care: **15**
- Victoria community clinic: **14**
- Regional NSW (Newcastle): **10**
- Remote NSW (Cessnock): **6**
- Metro Sydney NSW: **14**
- Northern Sydney NSW: **19**
- South Australia: **22**

Completed Treatment
N = 75

- Discontinued N= 25
- Lost to follow up n = 16
- In prison n = 2
- In residential rehab n = 1
- Side effects n = 1
- Transfer to Sublingual n = 2
- Other n = 3

Completed Research
Interviews
N = 85

- Discontinued N= 15
- Unwilling to continue n = 4
- Lost to follow up n = 8
- In prison n = 2
- In residential rehab n = 1

Baseline characteristics:

Age and Gender

- Age, mean(SD) : 44 (9)
- Female: 28

Background and Education

- Born in Australia: 88%
- Main source of income pension or benefit: 70%
- Completed year 10 education or more: 69

Present Living Condition

- Boarding house: 6
- Privately owned house or flat: 22
- Rented house or flat : 51
- Other: 21

Baseline characteristics:

First opioid of use

- Age, mean (SD): 24 (8)
- Heroin : 58%
- Pharmaceutical opioid : 40%
- Other : 2%

First Problem Opioid use

- Age, mean (SD): 28 (9)
- Heroin : 58%
- Pharmaceutical opioid: 41%
- Other : 1%

Baseline characteristics: OAT treatment history

First Treatment Episode

- Age : 34 years (mean)
- Methadone : 41%
- Buprenorphine : 59%

Lifetime duration of OAT treatment in years (median)

- Length : 2.3
- Methadone : 0.5
- Buprenorphine : 3

OAT treatment in the past three month

- Methadone : 7
- Buprenorphine-naloxone : 99
- Buprenorphine : 4

Baseline characteristics

Clinical Opiate Withdrawal Scale, n (%)

- No opioid withdrawal reported : 90
- Mild withdrawal reported : 10
- Significant withdrawal reported : 0

Other baseline characteristics:

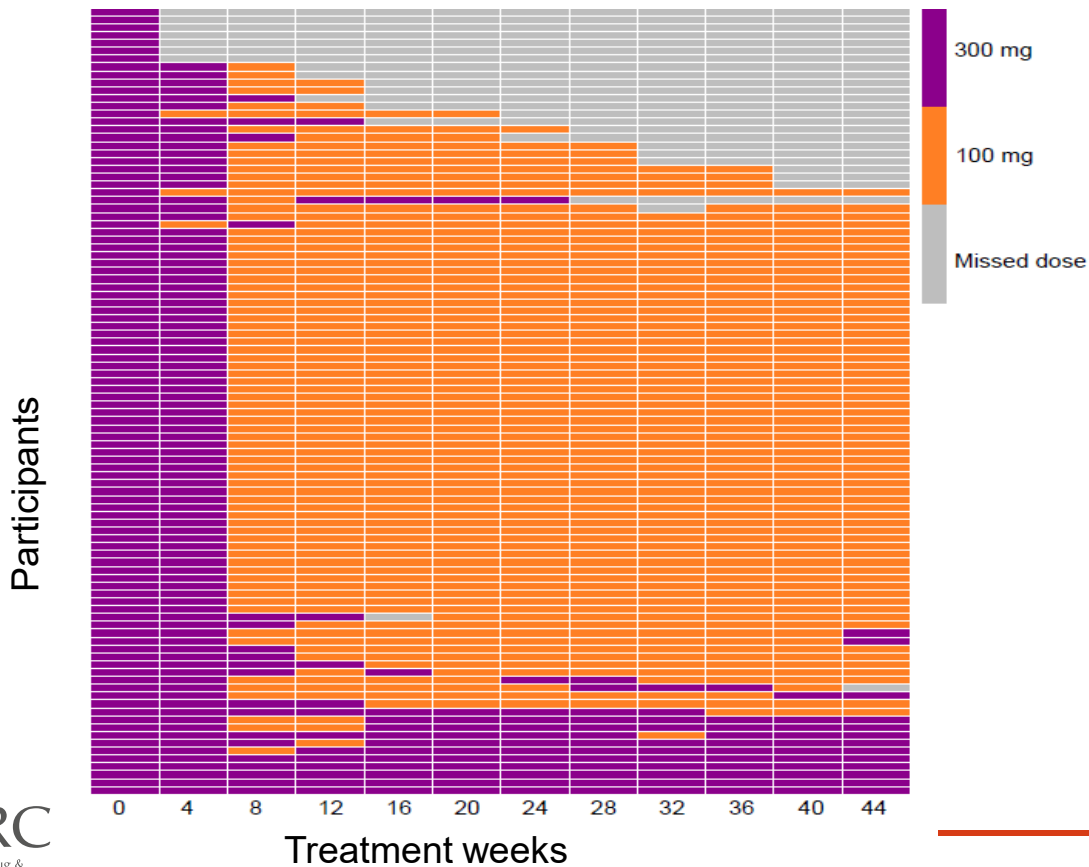
- Non-fatal overdose in the past year : 14
- Opioid Craving VAS, median : 0
- Subjective Opiate Withdrawal Scale, median : 0
- Moderately-severely depressed (PHQ-9), n (%) : 42

Baseline characteristics: substance use

Past month substance use, n

Any illicit drug use	54
Opioids	28
Injected any drug	28
Heroin	20
Other Opioids	11
Amphetamine Type Substances	25
Cocaine	4
Benzodiazepines	33
Alcohol	50
Cannabis	35
Daily tobacco smoking	73

Treatment retention and adherence



Predictors of treatment drop out: unadjusted

Bivariate analyses shows **heroin use** and **injecting drug use in the past month** are statistically significant predictors of treatment drop out

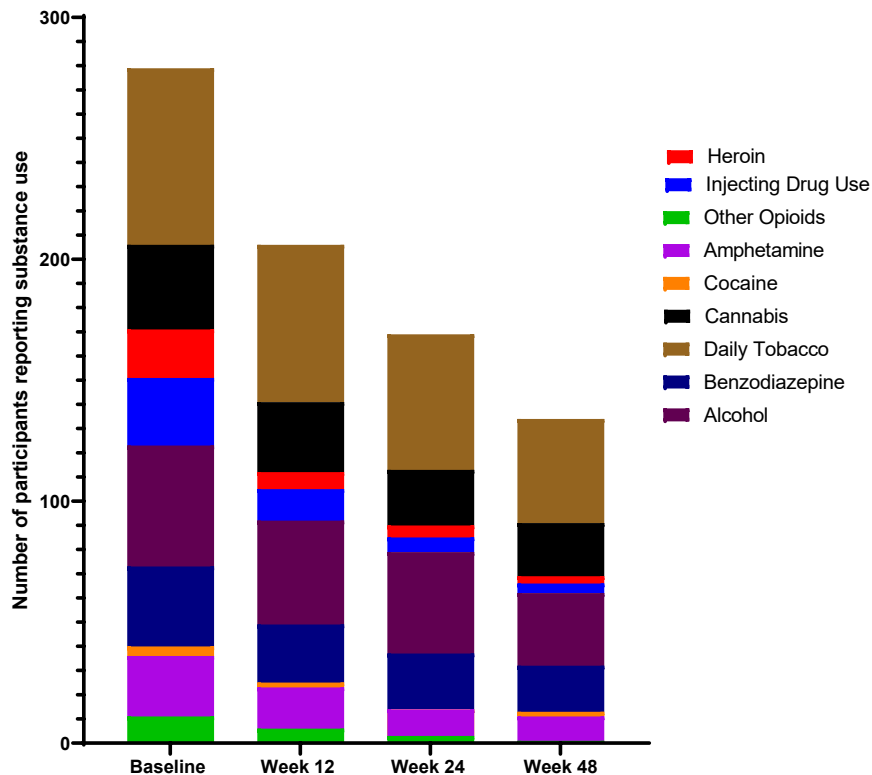
Unadjusted Models			
Independent variables	HR	95% CI	P-value
Age	0.96	0.91 - 1.00	0.053
Gender	1.52	0.67 - 3.44	0.314
Injecting drug use in the past month	3.46	1.58 - 7.59	0.002
Heroin use in the past month	3.22	1.44 - 7.18	0.004
Other non-prescribed opioids in the past month	0.31	0.04 - 2.27	0.249
Amphetamine use in the past month	1.83	0.81 - 4.14	0.148
Length of time in OAT treatment prior to study (years)	0.89	0.77 - 1.03	0.127

Predictors of treatment drop out: adjusted

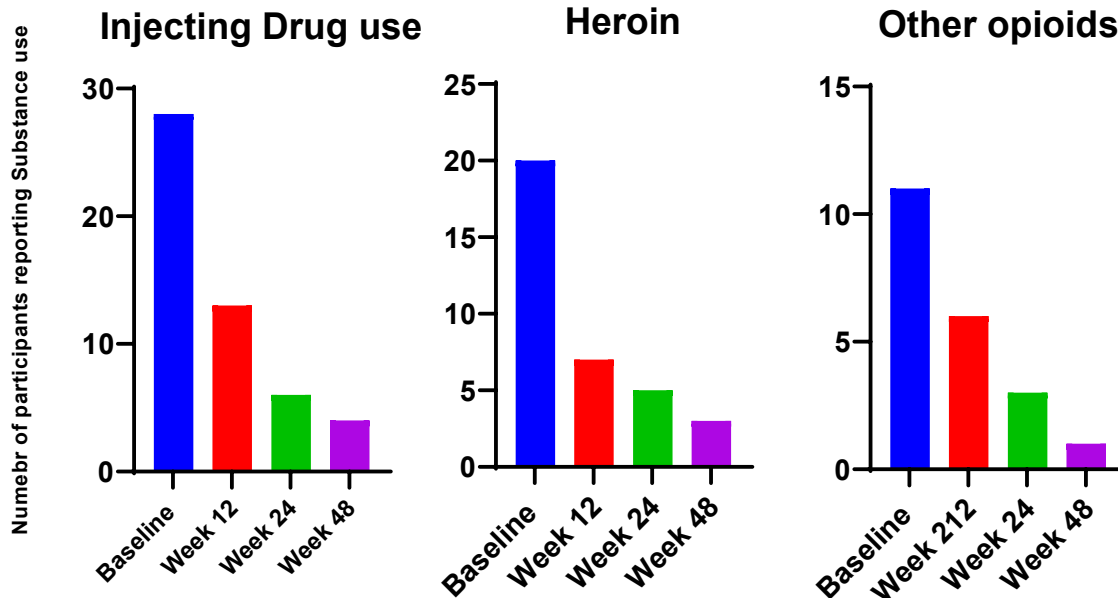
- Adjusting for age, gender and length of OAT treatment, injecting drug use in the past month is again a significant predictors of treatment drop out
- Adjusting for age, gender and substance use (including heroin, other non-prescribed opioids and amphetamine); heroin use in the past month becomes a significant predictor of treatment drop out

Independent variables	Adjusted Model 1			Adjusted Model 2		
	HR	95% CI	P-value	HR	95%CI	P-value
Age	0.95	0.91 - 0.99	0.032	0.97	0.92 - 1.00	0.122
Gender	2.00	0.84 - 4.75	0.115	1.52	0.62 - 3.69	0.357
Injecting drug use in the past month	4.10	1.81 - 9.32	0.001	..	..	..
Heroin use in the past month	..	..	..	2.93	1.19 - 7.16	0.019
Other non-prescribed opioids in the past month	..	..	..	0.28	0.04 - 2.16	0.223
Amphetamine use in the past month	..	..	..	1.32	0.49 - 3.53	0.577
Length of time in OAT treatment prior to study (years)	0.92	0.80 - 1.06	0.267	0.94	0.81 - 1.08	0.388

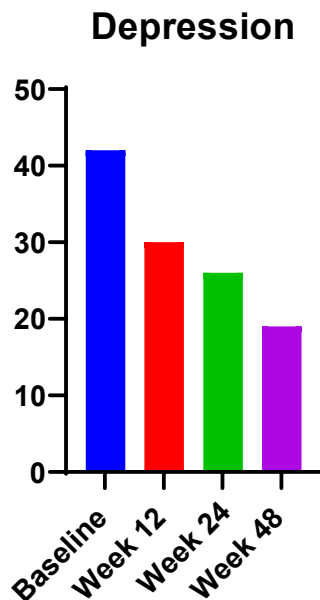
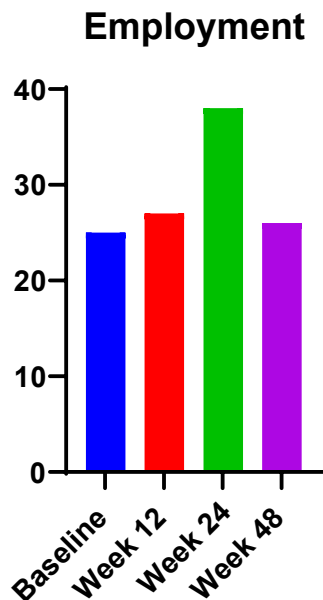
Drug use among people receiving depot buprenorphine



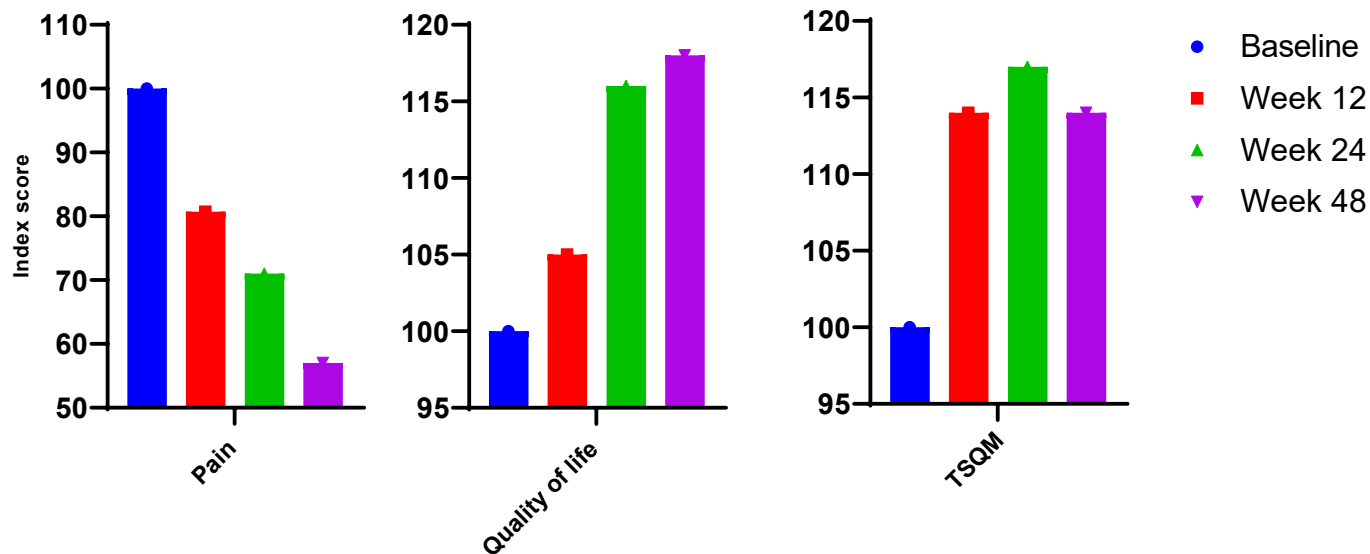
Opioid use



Employment and depression



Quality of Life, pain and treatment satisfaction



Sublingual buprenorphine top up prescription

Sublingual buprenorphine was primarily prescribed during the first three month of the study

Percentage of participants who received sublingual top up at each interval

Week 4 - 12	17
Week 16 - 24	3
Week 28 - 36	1
Week 40 - 48	1
.....mean duration of sublingual buprenorphine top-up (days)	5
.....mean dose of sublingual buprenorphine top-up (mg)	7

Main reasons for sublingual prescription

Patient request	2
Patient reporting withdrawal symptoms	16
Investigator decision	4

Adverse events

Number of people with a treatment-related adverse events	45
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Number with a serious treatment-related adverse event	0
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Top 3 treatment-related adverse events

Withdrawal symptom	17
Injection site pain	11
Injection site itching	14

Top 10 Adverse Events (number of events)

Withdrawal symptom	44
Injection site pain	16
Injection site itching	14
Headache	11
Injection site lump	9
Constipation	8
Lethargy	7
Nausea	7
Injection site redness	6
Product leakage	4

Conclusion

- This study showed:
 - Successful implementation of buprenorphine depot treatment
 - High treatment retention rate
 - High treatment adherence
 - Reduced substance use
 - Reduced depression
 - Improved quality of life
 - Improved treatment satisfaction
- However further longer term observational studies with larger cohorts are required in order to gain deeper understanding on the benefits of buprenorphine depot medications.

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