



ST VINCENT'S  
HEALTH AUSTRALIA

# A game changer! Long acting Injectables for Opioid Use Disorder Management

November 2021

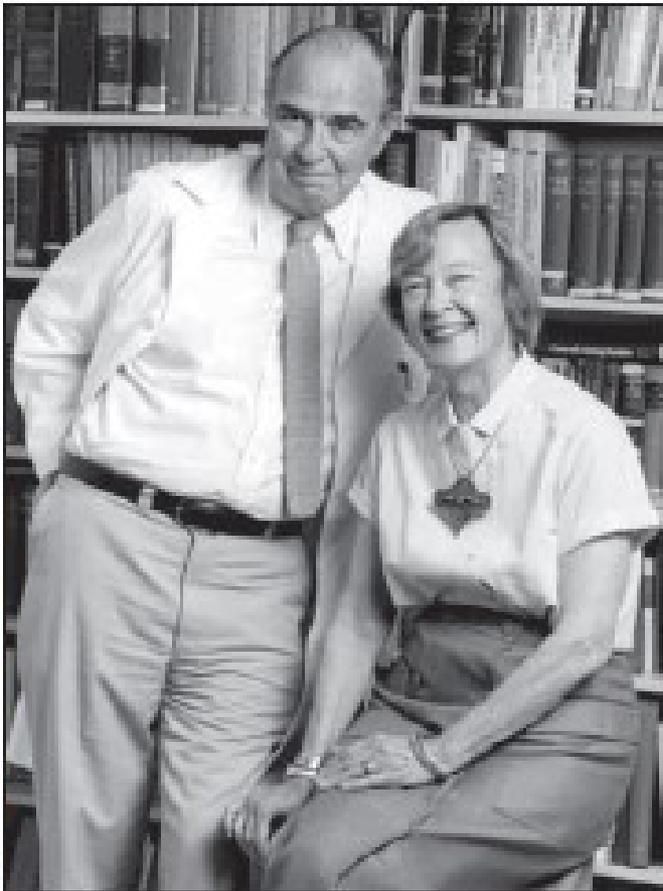
Dr Adam Pastor BA MBBS FACHAM FRACP  
Addiction Medicine Specialist and General Physician  
Department Addiction Medicine St Vincent's Hospital Melbourne

UNDER THE STEWARDSHIP OF MARY AIKENHEAD MINISTRIES

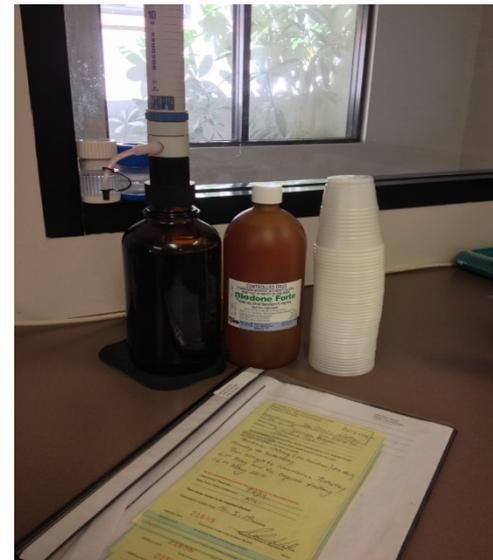
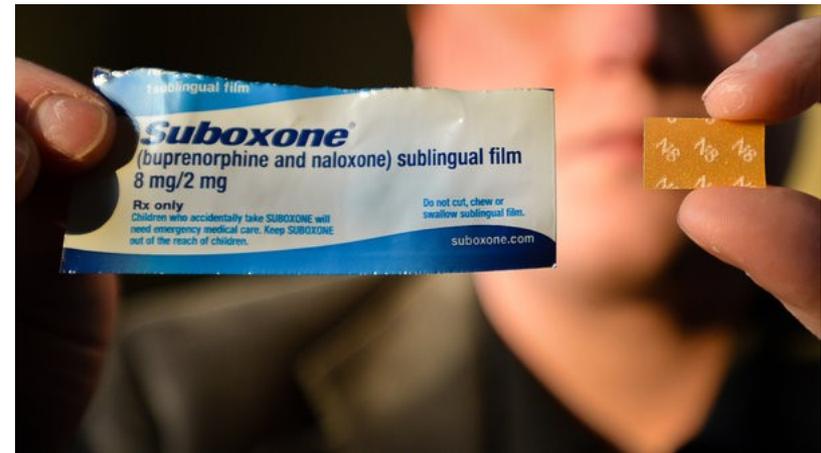
## Heroin Addiction – A Metabolic Disease

Vincent P. Dole, MD and Marie E. Nyswander, MD, New York

*Arch Intern Med—Vol 120, July 1967*



Inglbert Gröttnner/The Rockefeller University



# Nopsad 2021 - Key findings

(National Opioid Pharmacotherapy Statistics Annual Data Collection)

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## Snapshot day June 2020

- **53,316 on course of pharmacotherapy for opioid use disorders**
  - **median age 44**
  - **male (67%)**
  - **3422 individual prescribers**
  - **71% dosing at local pharmacies**
  - **access in cities > regional > remote**
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# Buvidal

- Injectable form – subcutaneous
- Buprenorphine only
- PBS listed September 2019
- Seven doses available – Weekly and Monthly of
  - Weekly – 8mg, 16mg, 24mg, 32mg
  - Monthly – 64mg, 96mg, 128mg



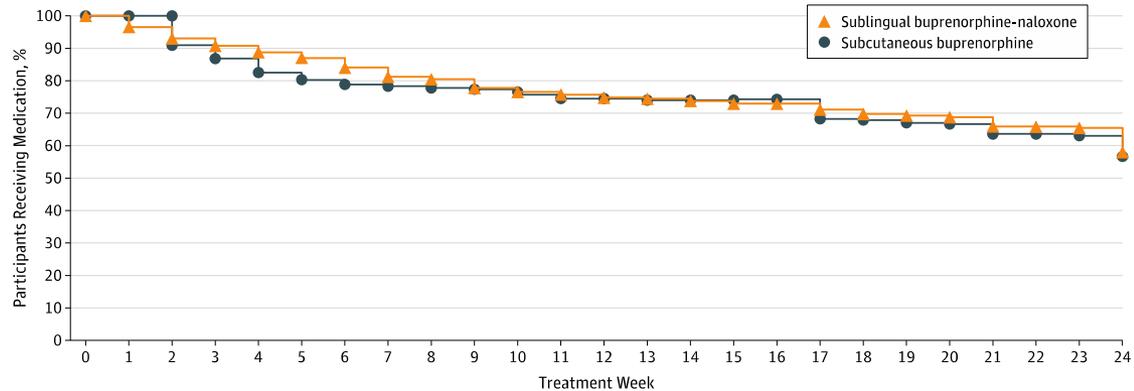
# Efficacy

Weekly/Monthly  
**Buvidal**<sup>®</sup>  
BUPRENORPHINE  
MODIFIED RELEASE SOLUTION FOR  
INJECTION FOR SUBCUTANEOUS USE



Figure 2. Study Outcomes

**A** Retention in medication regimen



No. retained																									
SC-BPN group	213	213	194	185	176	171	168	167	166	165	163	159	159	158	158	158	158	146	145	143	142	136	136	135	121
SL-BPN/NX group	215	208	200	195	191	187	181	175	173	167	164	163	161	160	158	157	157	153	150	149	148	142	142	141	125

1. Lofwall et al., JAMA Int. Med. 2018,178(6); 764-773; 2.



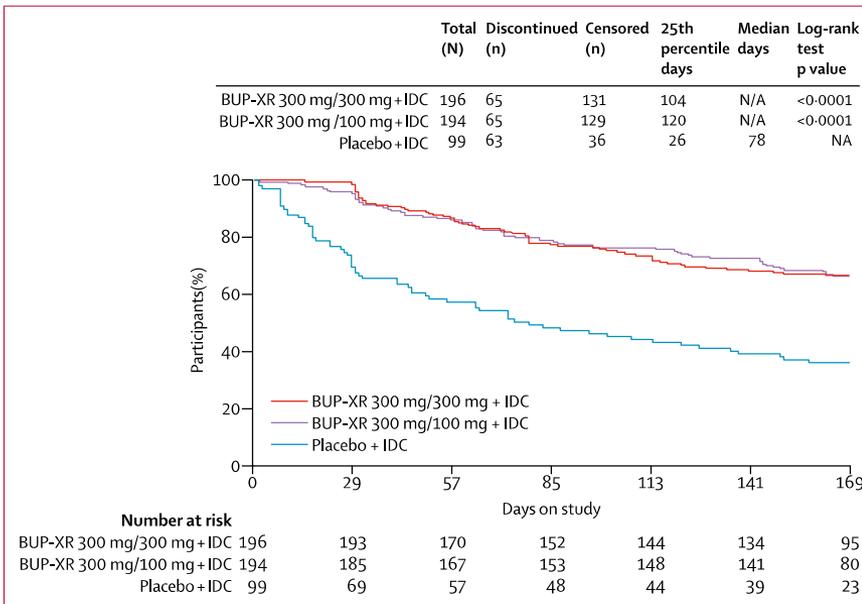
# Sublocade

- **Injectable form – subcutaneous**
- **Buprenorphine only**
- **PBS listed May 1st 2020**
- **Two doses available – Monthly administration**
  - **300mg in 1.5mL**
  - **100mg in 0.5mL**
  
- **Biodegradable polymer and solvent create a solid depot under the skin**
- **Pre-filled syringe, 19g needle**



# Efficacy

**Sublocade**<sup>®</sup>  
(buprenorphine extended-release)  
injection for subcutaneous use   
100mg-300mg



# Effectiveness – Real World Data

Figure 2. Overview of Treatment Satisfaction Questionnaire for Medication (TSQM), Patient Satisfaction-Visual Analog Scale (PS-VAS), Patient Global Impression of Improvement (PGI-I), Treatment Burden Questionnaire (TBQ), Opioid-Related Behaviors in Treatment (ORBIT), and Substance Use Recovery Evaluator (SURE) Results

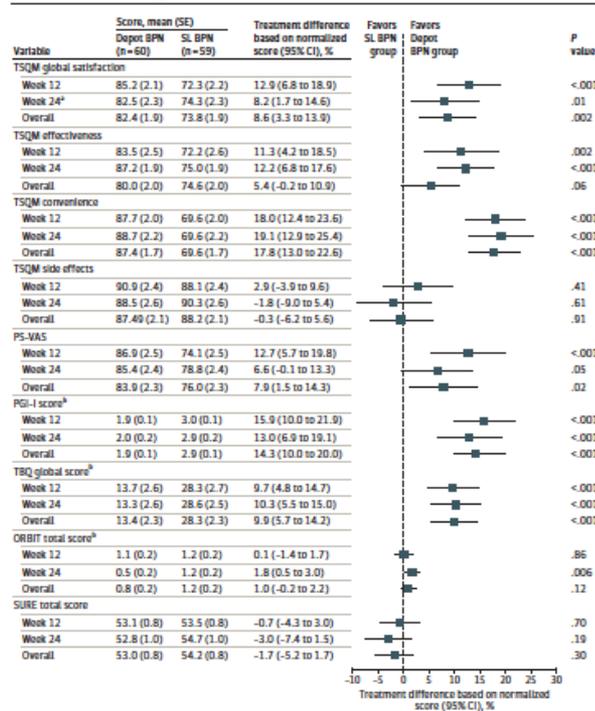
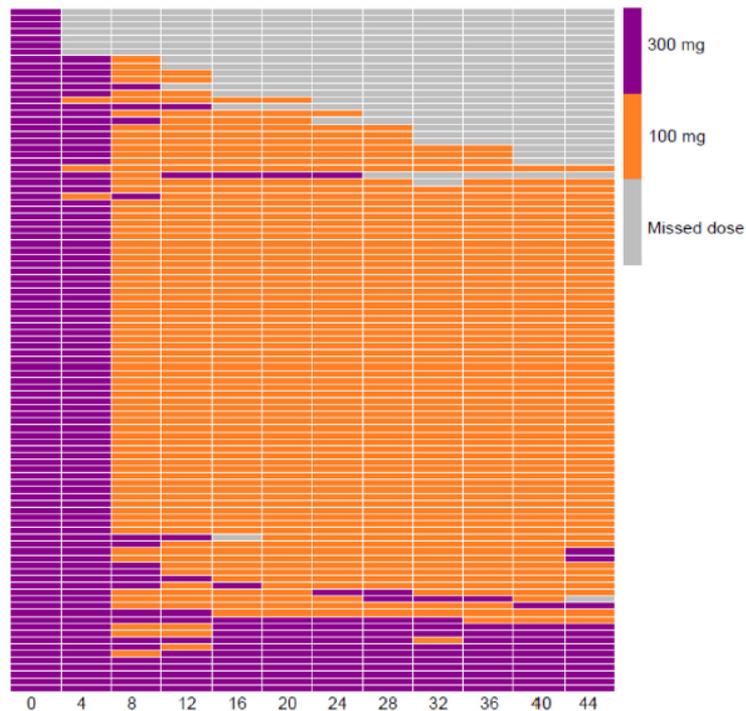


Table 2. Summary of Treatment-Emergent AEs<sup>a</sup>

Characteristic	Patients, No. (%)		
	Depot buprenorphine group (n = 60)	SL buprenorphine group (n = 59)	Total (N = 119)
Treatment-emergent AEs	54 (90.0)	49 (83.1)	103 (86.6)
Drug-related ADRs	39 (65.0)	12 (20.3)	51 (42.9)
SAEs	9 (15.0)	9 (15.3)	18 (15.1)
Serious drug-related ADRs	1 (1.7)	0	1 (0.8)
AEs or SAEs leading to withdrawal of trial medication	0	0	0
Deaths	0	0	0
Drug overdoses	0	4 (6.8)	4 (3.4)
<b>AEs occurring in ≥8% of participants</b>			
<b>Injection site</b>			
Pain	11 (18.3)	0	11 (9.2)
Mass	10 (16.7)	0	10 (8.4)
Bruising	5 (8.3)	0	5 (4.2)
Upper respiratory tract infection	7 (11.7)	2 (3.4)	9 (7.6)
Nausea	5 (8.3)	2 (3.4)	7 (5.9)
Vomiting	5 (8.3)	2 (3.4)	7 (5.9)
Toothache	5 (8.3)	1 (1.7)	6 (5.0)
Arthralgia	5 (8.3)	4 (6.8)	9 (7.6)

## Patient-Reported Outcomes of Treatment of Opioid Dependence With Weekly and Monthly Subcutaneous Depot vs Daily Sublingual Buprenorphine A Randomized Clinical Trial

Nicholas Lintzeris, MBBS, PhD; Adrian J Dunlop, MBBS, PhD; Paul S. Haber, MD, FRACP; Dan I. Lubman, MB ChB, PhD; Robert Graham, MBBS; Sarah Hutchinson, MSc; Shalini Arunogiri, MBBS, PhD; Victoria Hayes, MBBS, MPH; Peter Hjelmström, MD, PhD; Agneta Svedberg, MSc; Stefan Peterson, PhD; Fredrik Tjberg, PhD



**Table 5**  
Adverse events and events of special interest.

	n
Total number of serious adverse events	26
Total number of incidents where serious adverse events occurred	20
Number of deaths	0
Number of people with a serious adverse event over the treatment period	16
Number of people with a treatment-related adverse event	45
Top 3 treatment-related adverse events	
Withdrawal symptom	17
Injection site pain	11
Injection site itching	14
Number with a serious treatment-related adverse event	0
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 due to faulty syringe	4
Events of special interest	
Pregnancy	2
Buprenorphine overdose	0
Severe hepatic impairment	0
Depot removal	0
Severe precipitated withdrawal	0

## Outcomes of a single-arm implementation trial of extended-release subcutaneous buprenorphine depot injections in people with opioid dependence

Michael Farrell<sup>a,\*</sup>, Jeyran Shahbazi<sup>a</sup>, Marianne Byrne<sup>a,b</sup>, Jason Grebely<sup>b</sup>, Nicholas Lintzeris<sup>c,d</sup>, Mark Chambers<sup>a</sup>, Briony Larance<sup>a,e,f</sup>, Robert Ali<sup>a,g</sup>, Suzanne Nielsen<sup>a,h</sup>, Adrian Dunlop<sup>i,j</sup>, Gregory J. Dore<sup>b</sup>, Michael McDonough<sup>k</sup>, Mark Montebello<sup>c,l</sup>, Thomas Nicholas<sup>a</sup>, Rob Weiss<sup>m</sup>, Craig Rodgers<sup>n</sup>, Jon Cook<sup>o</sup>, Louisa Degenhardt<sup>a</sup>, on behalf of the CoLAB study team

# Uptake in Australia (approx.)

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November 2021	Victoria	Australia
Buvidal	1300	8200
Sublocade	1200	2600

Why?

Supervision

Cost

Dispensing

GP

Timing?



# Our experience

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- **once weekly or monthly contact with a single provider**
- **limited risk of overdose or diversion**
- **acceptable to PWID**
  
- **assistance of St Vincent's Inclusive Health Fund**
- **a pilot clinic; low threshold access for people wishing to commence/access LAIB**
  
- **Stakeholder feedback including AOD services, specialist and PWID**
  
- **no/low cost**
- **broad referral base including self-referral**
- **short waiting time**
- **clear and appropriate screening**

# Pandemic Long Acting Injectable Buprenorphine Clinic

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- **May 2020 to Jan 2021**
- **heavily pre-screened; Triage -critical to limit unnecessary attendances**
- **Level 4 PPE (goggles, mask, gown, gloves)**
- **minimise appointment time, flow through unit was unidirectional**
- **'light touch'**
- **take home naloxone, influenza vaccination**
- **temperature checks**
- **SafeScript (real time prescribing) and permit system**
- **Pathology and Oral Fluid Testing available**
- **Data collection**

# Value Adding

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**Take home naloxone (Nyxoid)**

**Influenza vaccination**

**HCV screening and treatment - fibroscan**

**HBV screening and referral +/- vaccination**

**Other AOD and Mental Health**



## Demographics (n=110)

Demographics		Treatment Related	
Mean age	39 years	Heroin Use in last month	41.4%
Age range	20 -74yo	In last week	37.9%
Male	65%	Prescription opioid	12%
Lives Alone	40.2%	Methadone > 50mg	8.2%
Private Accommodation	63.5%	Referral Source	
Worked in last month	12.1%	self	27%
Incarcerated in last 12 months	21.5%	drug court	13%
No prior opioid agonist treatment	10%	PAMS (Pharmacotherapy Advocacy Service)	6%

# Service Delivery

Measure	Number	
Injections	847	
Buvidal	820	519 (63%) monthly formulation 325 (62%) 128mg 112 (22%) 96mg
Sublocade	27	25 (93%) Sublocade 300mg
Take home naloxone (Nyxoid)	30 patients	
Influenza vaccination	22/53 eligible	
HCV testing	81 patients	Treated 4

# Outcome Measures

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Measure	Commencement	Follow Up
Retention in Treatment	100%	77%
Heroin Use in last month	41.4%	23%
Heroin Use in last week	37.9%	15.0%
Average # days heroin use	1.6 days/week	0.6 days/week
Employment	10.3%	14.3%
Homeless	12.1%	5.9%

# Other measures

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Psychological Health (Likert Scale 1-10)	5.8	6.3
Physical Health (Likert Scale 1-10)	5.5	6.2
Quality of Life (Likert Scale 1-10)	6.0	6.3

# Conclusions

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- **good retention in treatment possible**
  - **new to treatment and prescription opioid users**
  - **LAIB attractive option**
  - **mostly monthly, mostly upper dose ranges**
  - **encouraged uptake during pandemic**
  - **post-pandemic?**
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# New Horizons

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**Commencing directly on LAIB**

**Pregnancy (and Breastfeeding)**

**Transferring from methadone to LAIB**

**Criminal Justice System**

**Cost and availability**

**Attracting new people to treatment?**

**Improving/increasing other supports as more regular contact diminishes**



# Acknowledgements

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## St Vincent's Hospital Inclusive Health Fund

### staff at Depaul House

#### multidisciplinary staff

- Adam Straub- Doctor
- Helen O'Neill – CNC
- Amanda Streitburg - pharmacist