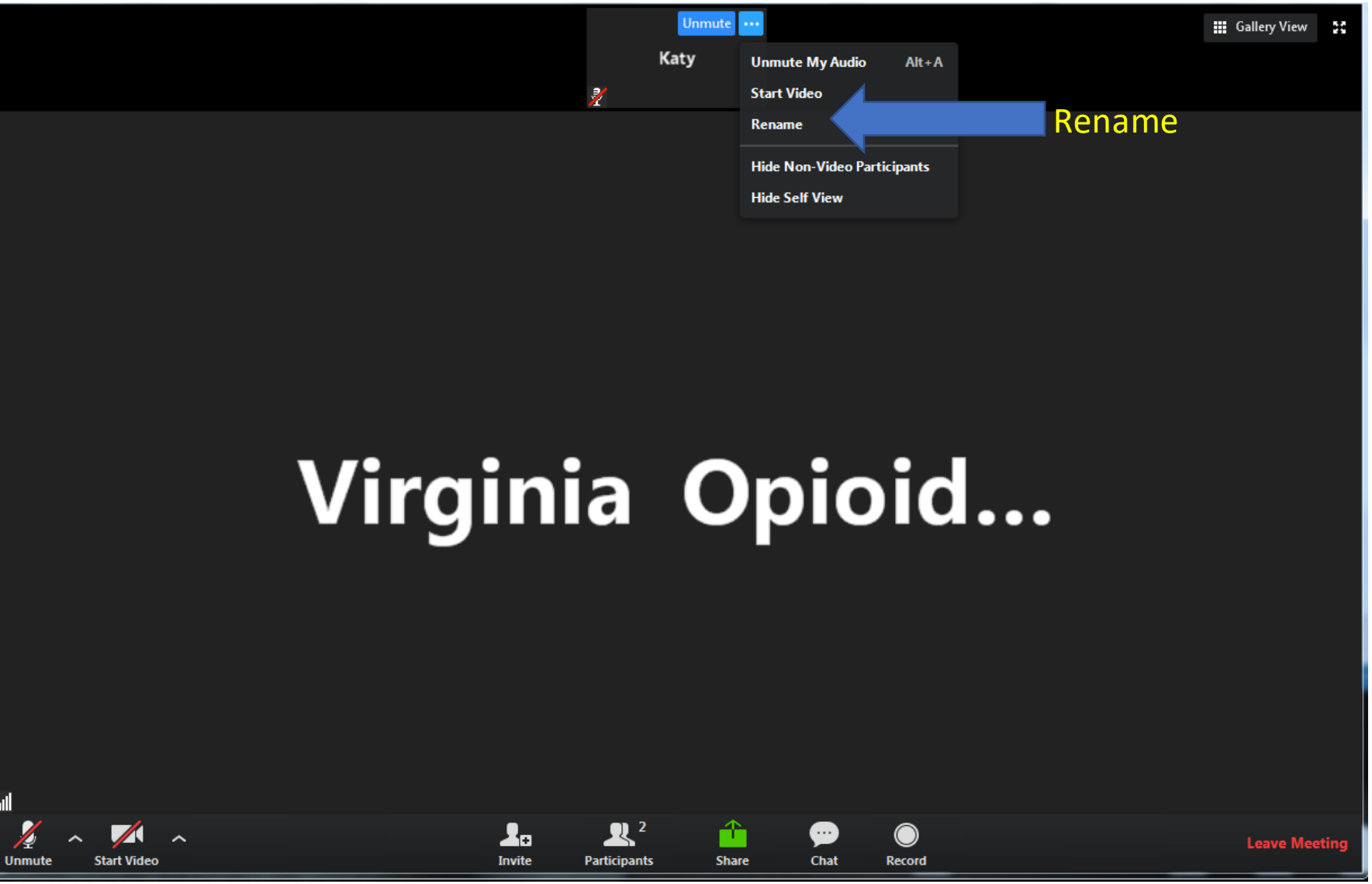
Virginia Opioid Addiction ECHO* Clinic

April 1, 2022

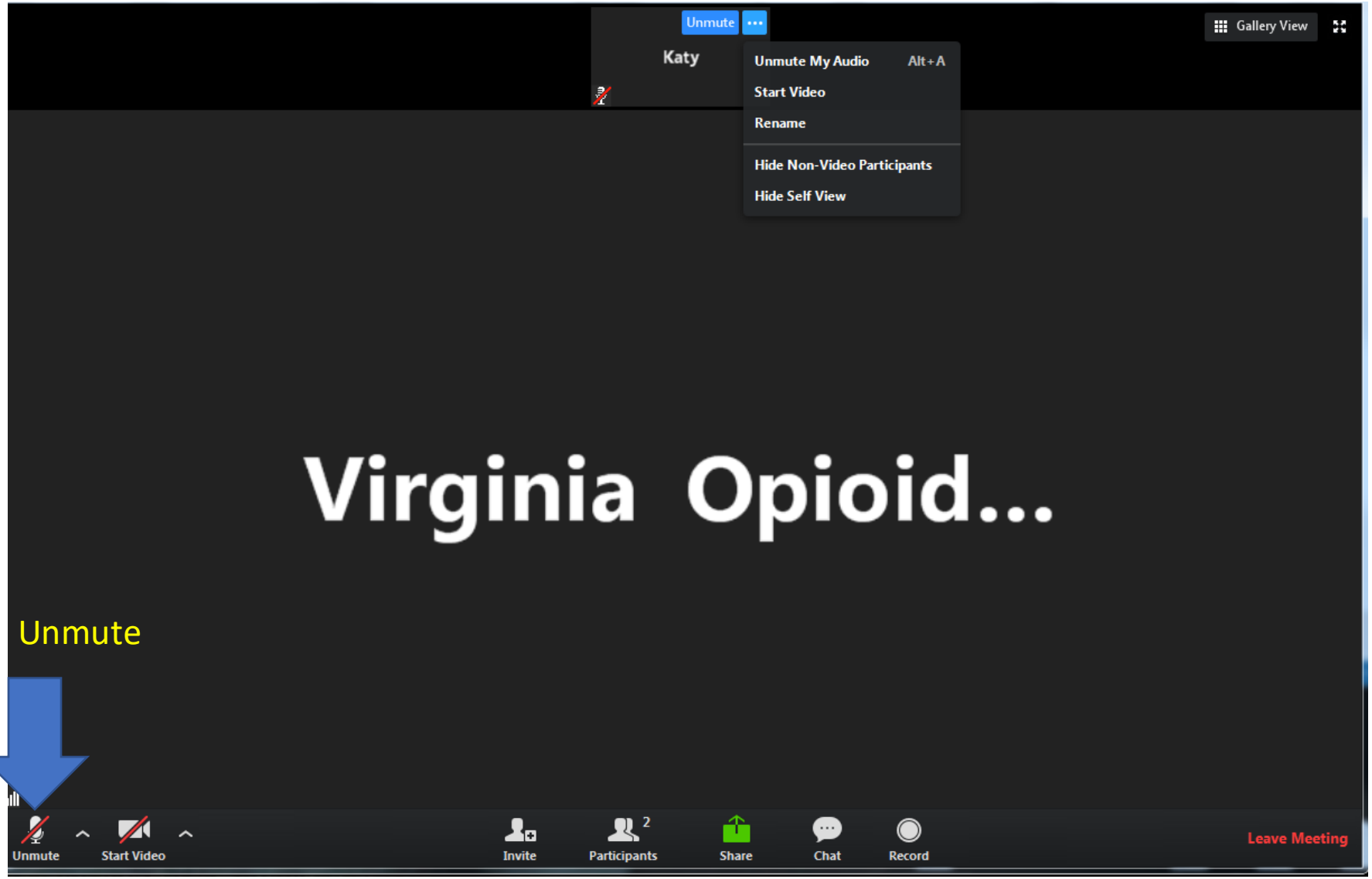
*ECHO: Extension of Community Healthcare Outcomes

Helpful Reminders



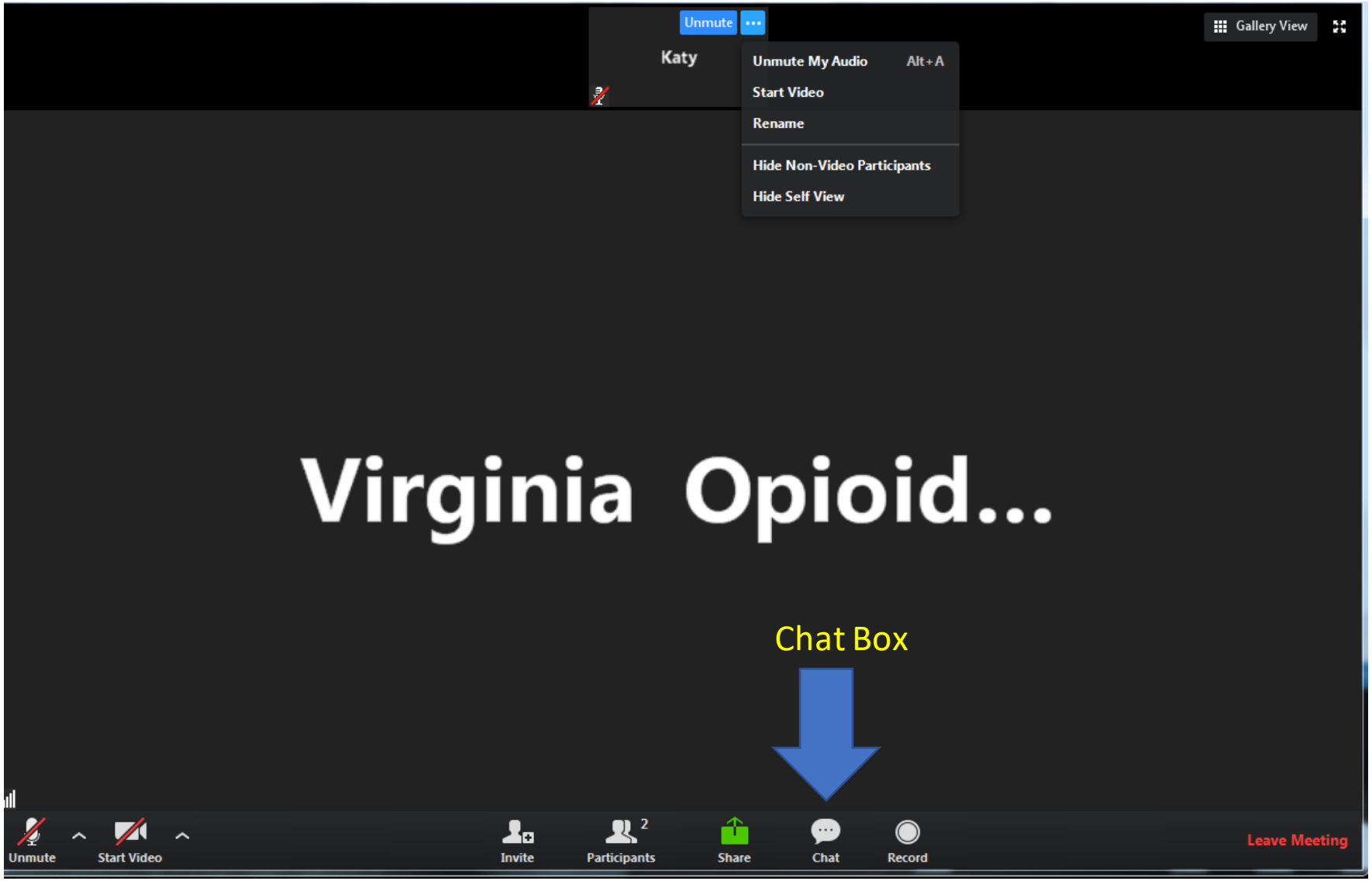
- Rename your Zoom screen, with your name and organization

Helpful Reminders



- You are all on mute please unmute to talk
- If joining by telephone audio only, *6 to mute and unmute

Helpful Reminders



- Please type your full name and organization into the chat box
- Use the chat function to speak with IT or ask questions

VCU Opioid Addiction ECHO Clinics

VCU Health
VCU School of Medicine

VDH Virginia Department of Health | VDHLiveWell.com

Virginia Department of Behavioral Health & Developmental Services

- Bi-Weekly 1 hour tele-ECHO Clinics
- Every tele-ECHO clinic includes a 30 minute didactic presentation followed by case discussions
- Didactic presentations are developed and delivered by inter-professional experts
- Website Link: www.vcuhealth.org/echo

Hub and Participant Introductions

VCU Team	
Clinical Director	Gerard Moeller, MD
Administrative Medical Director ECHO Hub	Vimal Mishra, MD, MMCi
Clinical Experts	Lori Keyser-Marcus, PhD Courtney Holmes, PhD Albert Arias, MD Megan Lemay, MD Katie Adams, PharmD
Didactic Presentation	Brandon Wills, DO
Program Manager	Bhakti Dave, MPH
Acute Telehealth Manager	Tamera Barnes, MD
IT Support	Vladimir Lavrentyev, MBA

- Name
- Organization

Reminder: Mute and Unmute screen to talk

*6 for phone audio

Use chat function for Introduction

What to Expect

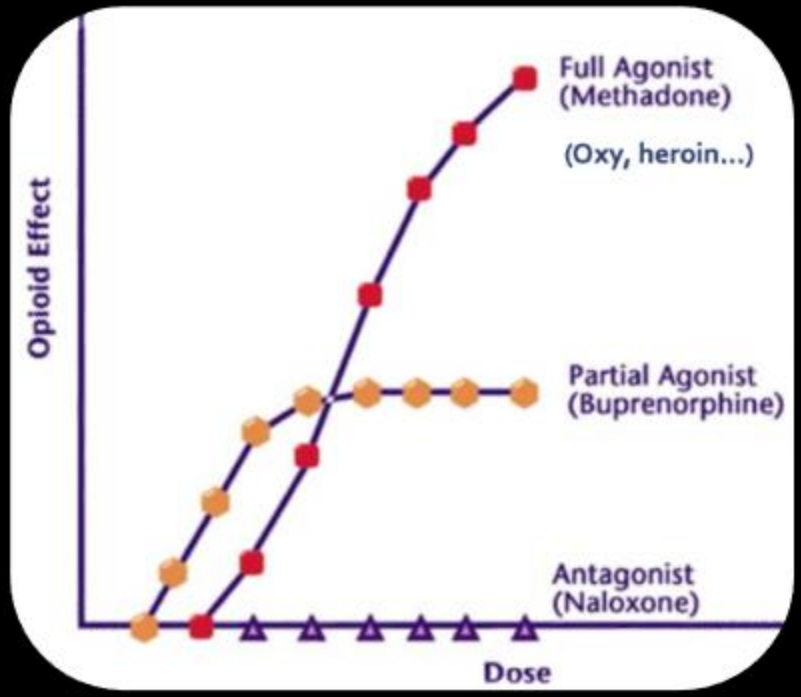
I. Didactic Presentation
    I. **Brandon Wills, DO**
II. Case presentations
    I. Case 1
        I. Case summary
        II. Clarifying questions
        III. Recommendations

III. Closing and questions

Lets get started!

Didactic Presentation

Buprenorphine Macrodosing



Brandon Wills, DO, FACEP, FAACT
Fellowship Director, Medical Toxicology
Division of Clinical Toxicology
VCU Medical Center
Virginia Poison Center

Disclosures

None

My background…

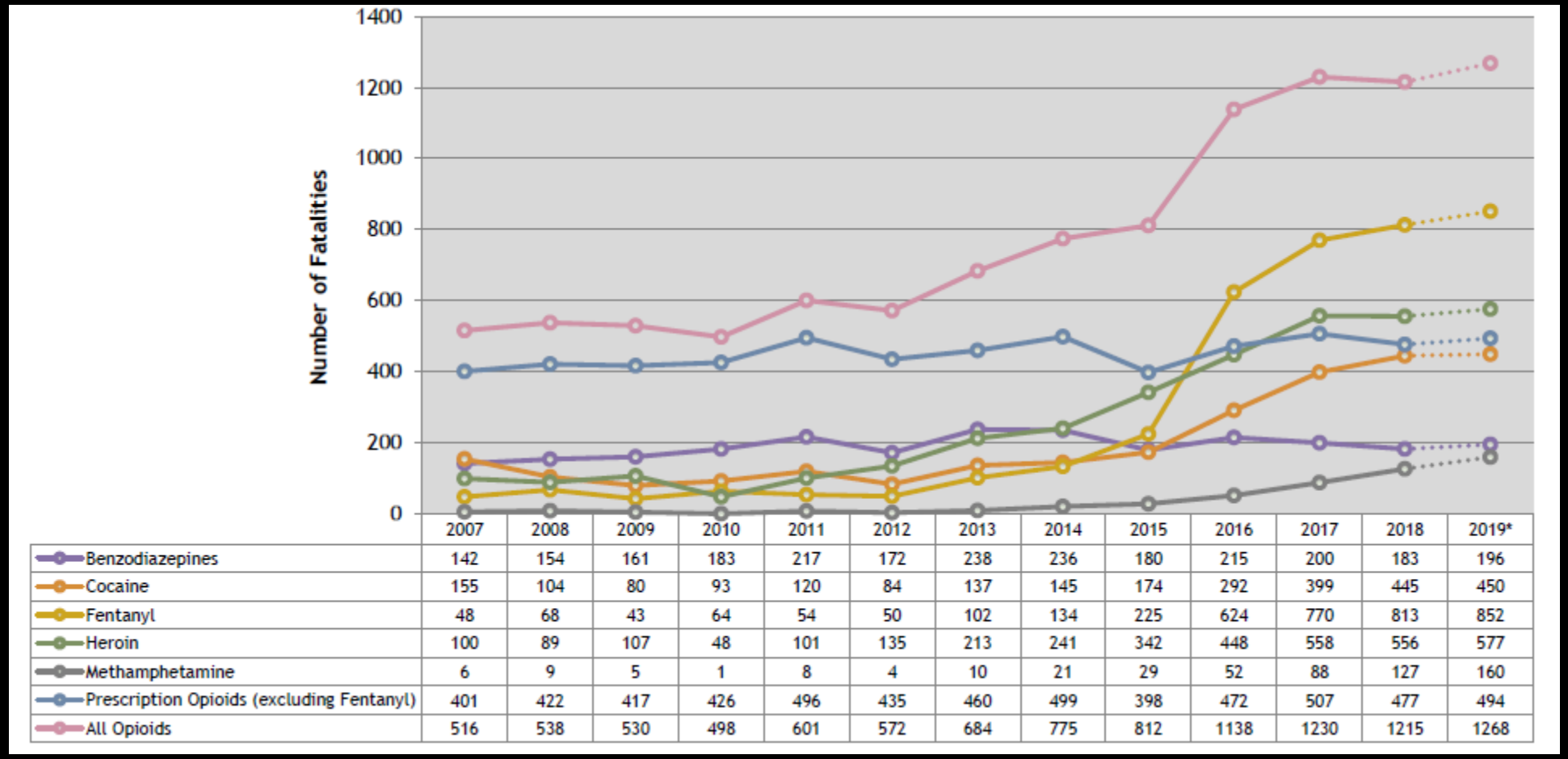
Objectives

- Distinguish dosing strategies for buprenorphine induction
- Discuss why we “need” alternative induction strategies
- Summarize literature on using higher dose buprenorphine (macrodosing)

Traditional Buprenorphine Induction

- 2-4mg Q 2h
- Potential **problems** with this approach?

The Rise of Fentanyl



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*
Benzodiazepines	142	154	161	183	217	172	238	236	180	215	200	183	196
Cocaine	155	104	80	93	120	84	137	145	174	292	399	445	450
Fentanyl	48	68	43	64	54	50	102	134	225	624	770	813	852
Heroin	100	89	107	48	101	135	213	241	342	448	558	556	577
Methamphetamine	6	9	5	1	8	4	10	21	29	52	88	127	160
Prescription Opioids (excluding Fentanyl)	401	422	417	426	496	435	460	499	398	472	507	477	494
All Opioids	516	538	530	498	601	572	684	775	812	1138	1230	1215	1268

Drug and Alcohol Dependence 214 (2020) 108147

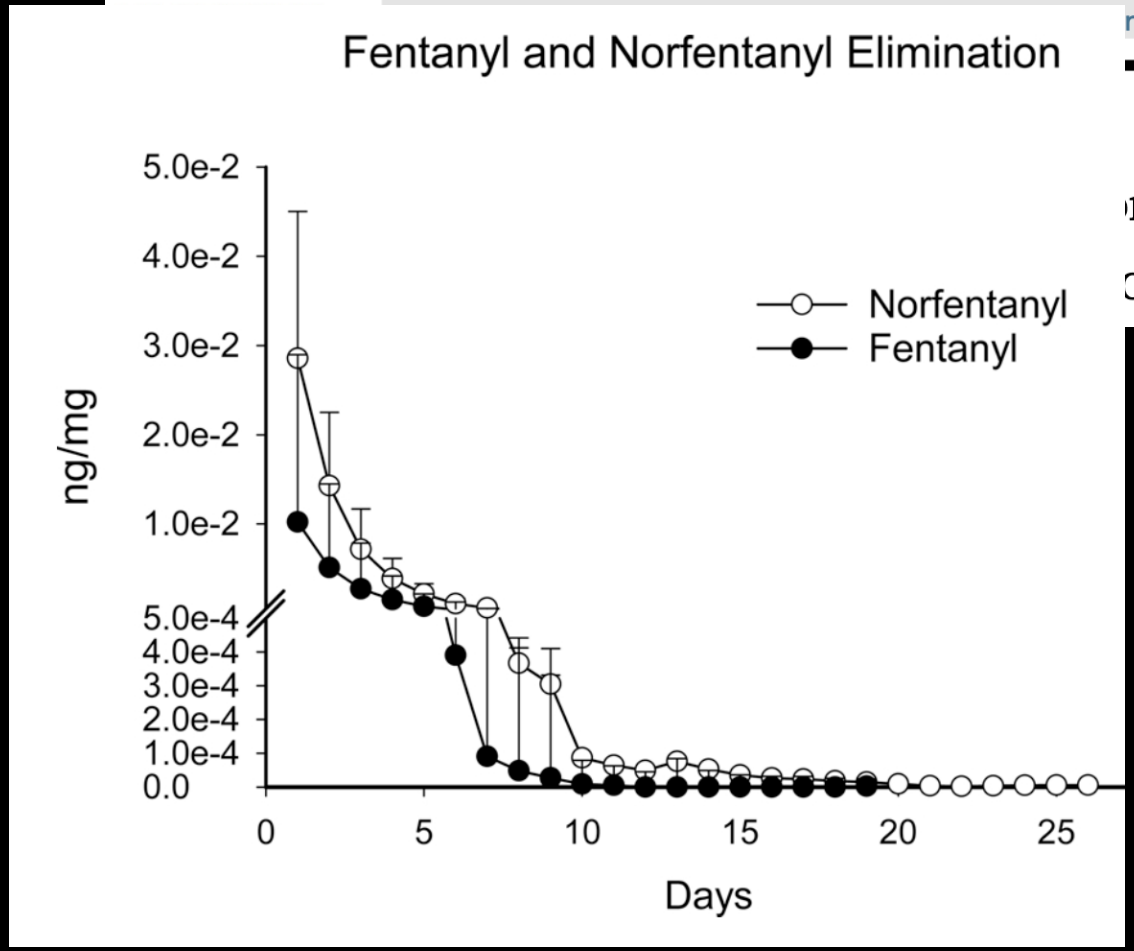
Contents lists available at ScienceDirect

Drug and Alcohol Dependence

r.com/locate/drugalcdep

ns with opioid use disorder

Oyler[c], Eric C. Strain[a]

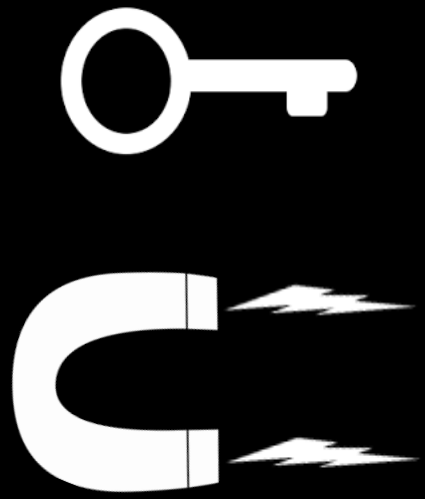


Fentanyl Elimination:
Single use≈ 3 hrs
Daily use≈ 7 days

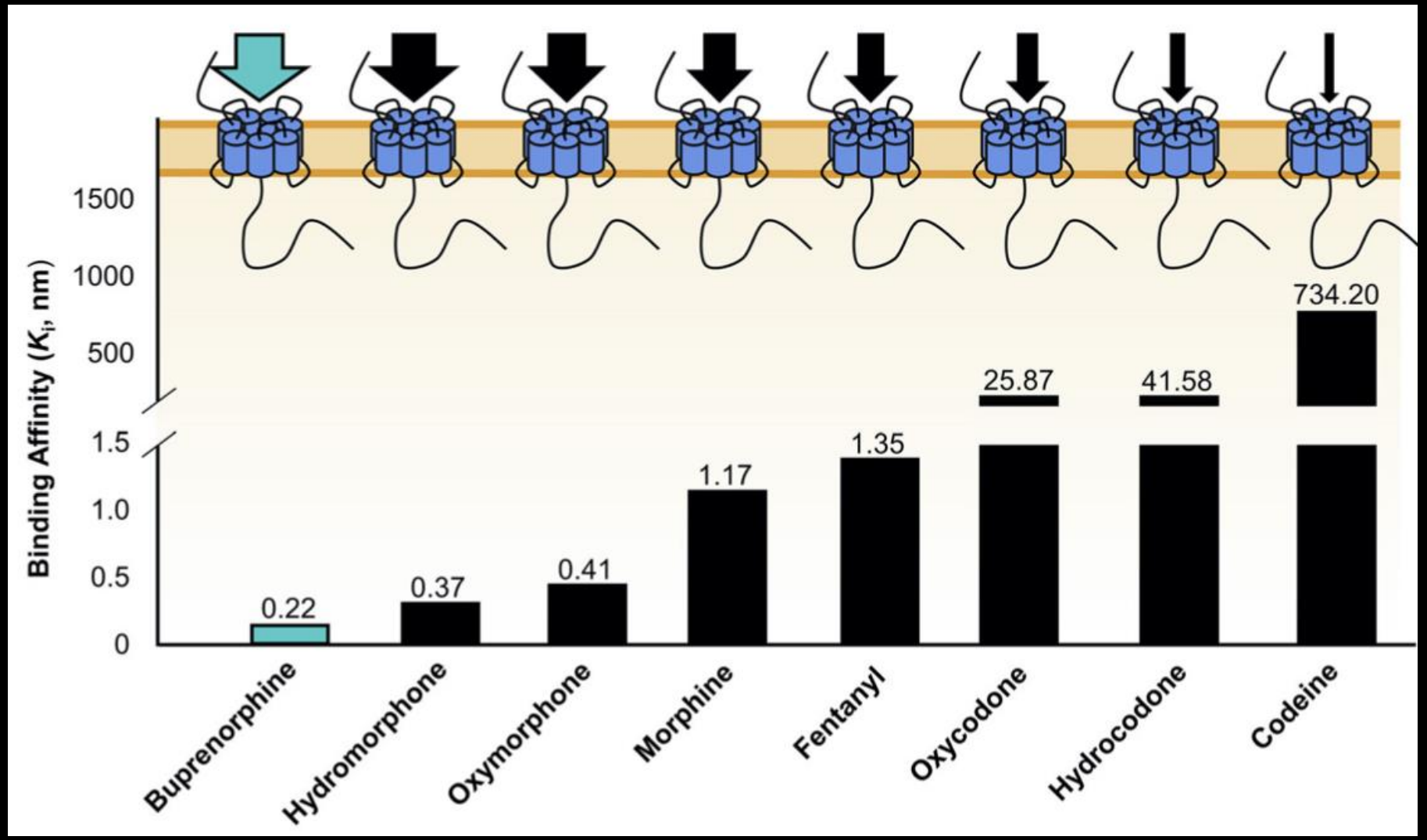
Huhn, *Drug Alc Dep*, 2020
Mather, *Clin Pharmacokinet*, 1983
Lotsch, *Clin Pharmacokinet*, 2013

μ-opioid Receptor

Affinity vs Potency

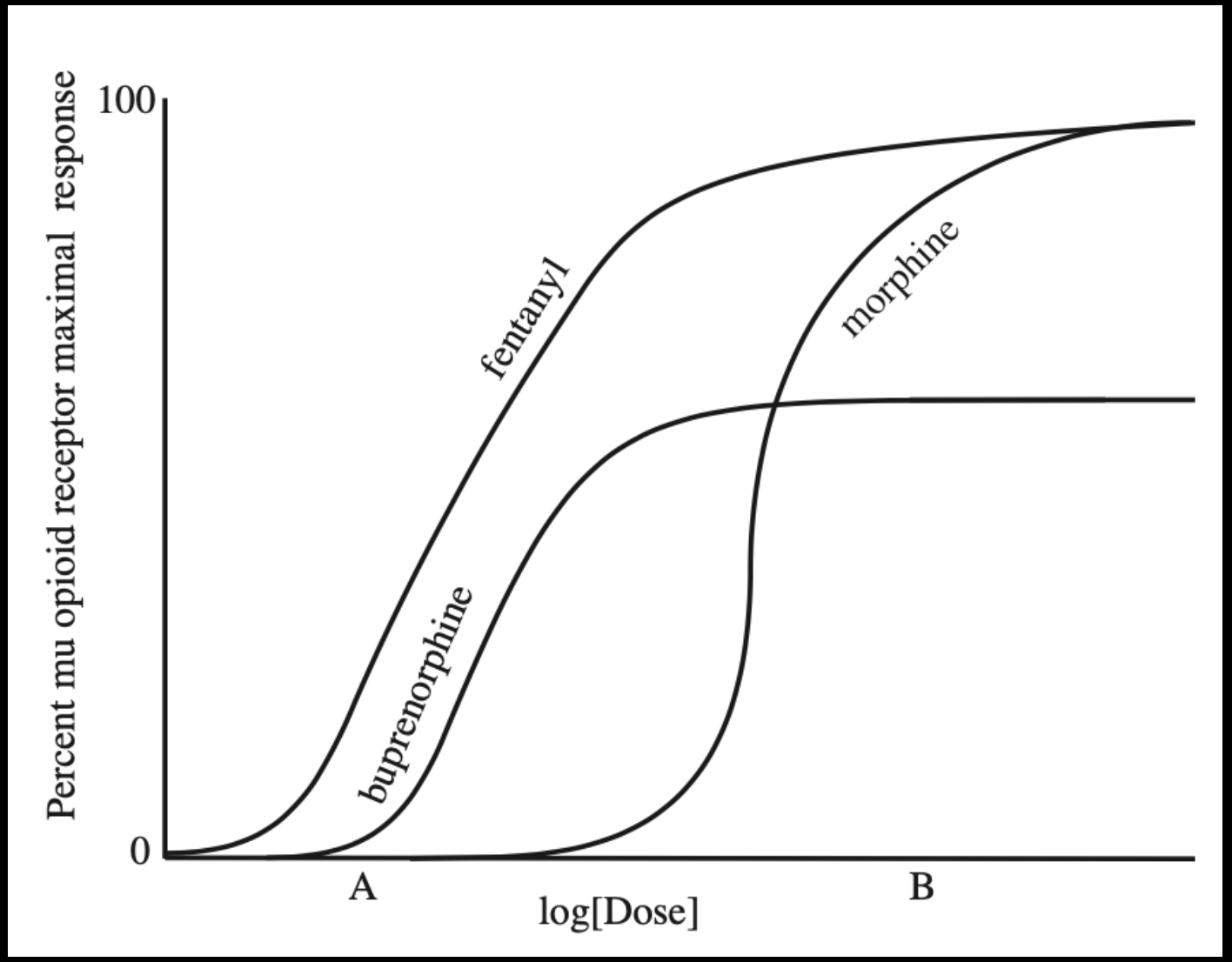


Affinity

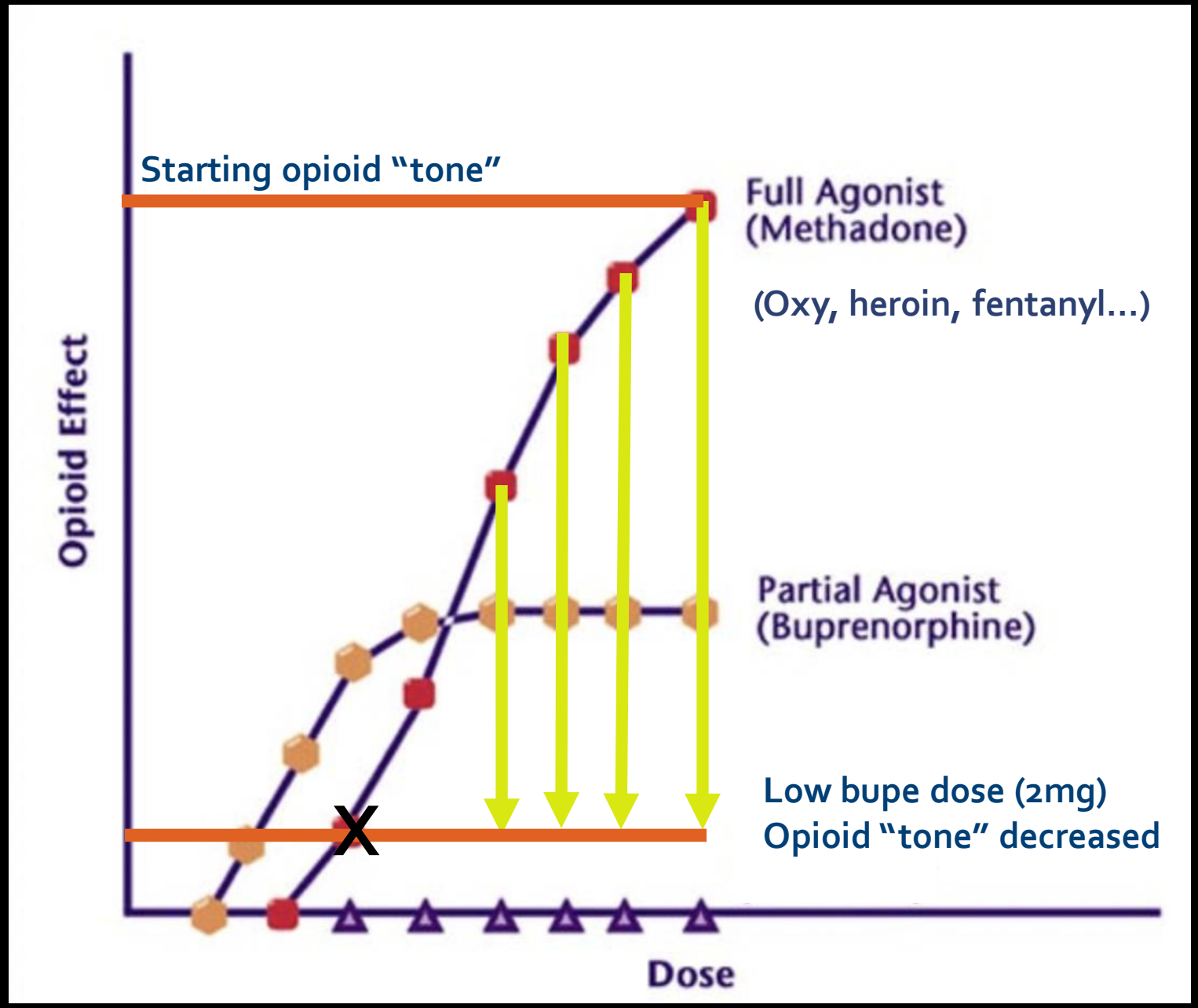


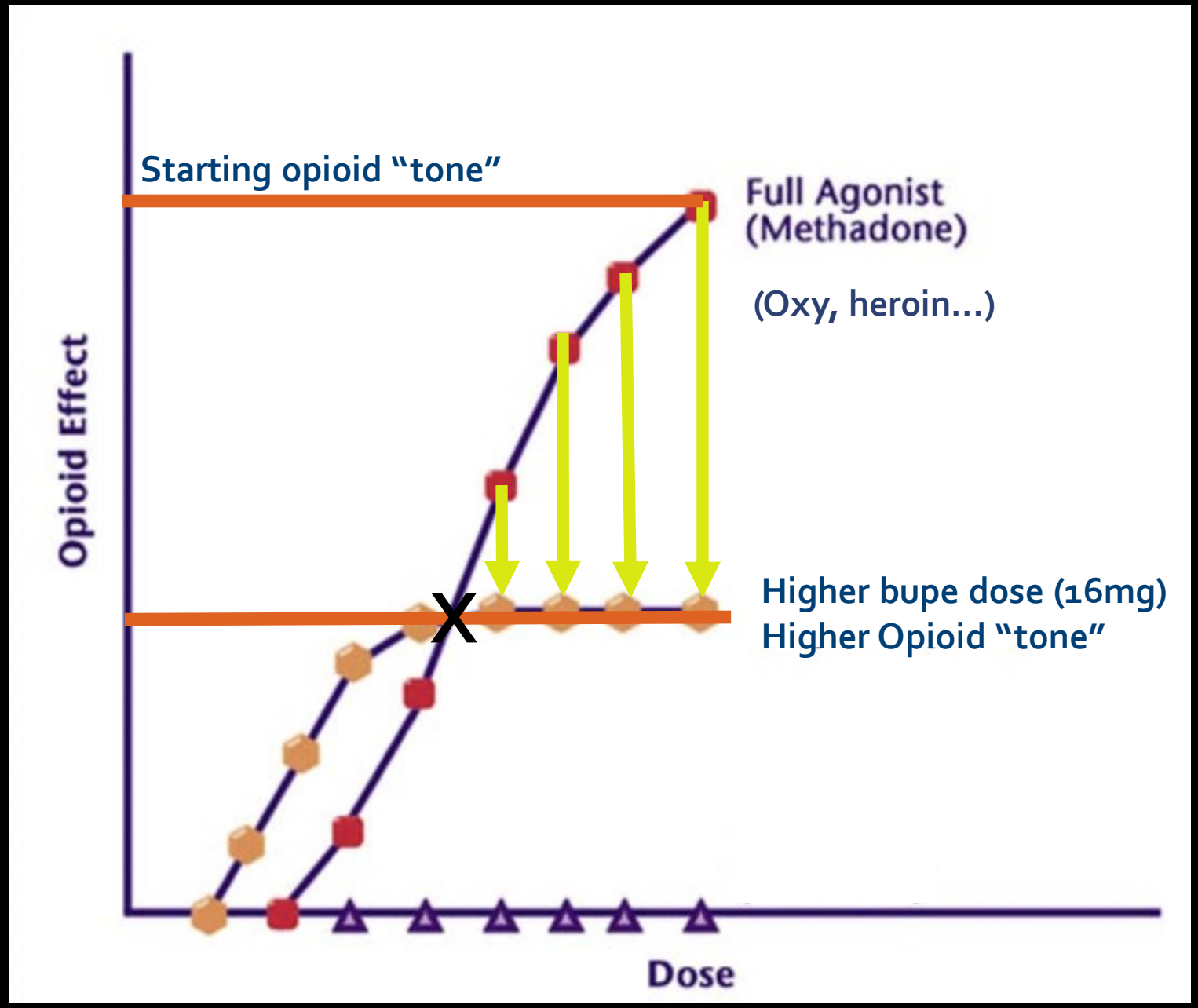
Pain Ther (2020) 9:41–54

Potency



J Addict Med • Volume 00, Number 00, Month/Month 2018


Starting opioid "tone"
Full Agonist
(Methadone)
(Oxy, heroin, fentanyl…)
Opioid Effect
Partial Agonist
(Buprenorphine)
Low bupe dose (2mg)
Opioid "tone" decreased
X
Dose


Starting opioid "tone"
Full Agonist
(Methadone)
(Oxy, heroin…)
Opioid Effect
X
Higher bupe dose (16mg)
Higher Opioid "tone"
Dose

Goals of Buprenorphine Pharmacotherapy

- Abort withdrawal/ cravings
- Stop other opioid use
- Harm reduction in other domains…
- Avoid precipitating withdrawal
- Avoid adverse drug effects of buprenorphine

Microdose induction

- Useful for inpatients actively treated w/ full agonists
- Limited use in the outpatient setting

Day	Buprenorphine Dose (SL)
1	0.5 mg QD
2	0.5 mg BID
3	1 mg BID
4	2 mg BID
5	4mg BID
6	8 mg QD
7	8 mg am, 4mg pm
8	12 mg (stop full agonist)

Macrodose induction

- ~~2-4mg Q 2h~~
- ~~Max day 1 dose: 16mg~~
- ~~Max day 2 dose: 24mg~~

-Start with higher doses (8-16 mg)
-Escalate quickly (Q 30-60 min)
-Max doses ~32 mg

Macrodosing buprenorphine

Macrodosing: Risks v Benefits

Potential **Benefits**

- Faster induction
- ↓ risk of P.O.W
  - Receptor saturation
  - Reduce withdrawal sx

Potential **Risks**

- ADR of high-dosing
  - Concurrent benzo's
  - Pregnancy
  - Transitioning from methadone
  - Concomitant medical co-morbidities

Adapted from Rutgers Project ECHO, June 4, 2021

Evidence for using macrodosing?

I. Risk of respiratory depression?

II. Treatment of precipitated withdrawal?

III. Induction efficacy?

High-dose Buprenorphine

I. Risk of respiratory depression?

II. Treatment of precipitated withdrawal?

III. Induction efficacy?

REVIEW ARTICLE

Toxicol Rev 2006;25(2)79

Does High-Dose Buprenorphine Cause Respiratory Depression?

Possible Mechanisms and Therapeutic Consequences

Bruno Mégarbane,[1,2] *Raymond Hreiche,*[1] *Stéphane Pirnay,*[1,3] *Nicolas Marie*[1] and *Frédéric J. Baud*[1,2]

Review article

- Suggests most buprenorphine deaths are misuse/ co-ingestants
- Likely drug synergy (eg. benzodiazepines)

PLOS ONE 2022;17(1)

RESEARCH ARTICLE

Effect of sustained high buprenorphine plasma concentrations on fentanyl-induced respiratory depression: A placebo-controlled crossover study in healthy volunteers and opioid-tolerant patients

Laurence M. Moss[1,2], Marijke Hyke Algera[2], Robert Dobbins[3], Frank Gray[3], Stephanie Strafford[3], Amy Heath[3], Monique van Velzen[2], Jules A. A. C. Heuberger[1], Marieke Niesters[2], Erik Olofsen[2], Celine M. Laffont[3], Albert Dahan[2], Geert Jan Groeneveld[1,2]*

Randomized, single-blind, crossover

- 14 opioid naïve + 8 opioid tolerant (> 90 MME)
- IV Bupe vs IV placebo → 4 escalating doses IV fentanyl
- Primary outcome: apnea & minute ventilation (V_E)

Table 2. Number and percentage of participants who experienced apnea that required stimulation (i.e. persister

	Part A: Healthy Volunteers				
Fentanyl Dose	**Fentanyl Dose Number**	**Placebo for 0.2 ng/mL (N = 6)**	**Buprenorphine 0.2 ng/mL (N = 6)**	**Placebo for 0.5 ng/mL (N = 6)**	**Buprenorphine 0.5 ng/mL (N = 6)**
0.075 mg/ 70 kg	1	0/6 (0)	0/6 (0)	0/6 (0)	0/6 (0)
0.15 mg/70 kg	2	1/6 (17)	0/4 (0) [b]	0/6 (0)	0/6 (0)
0.25 mg/70 kg	3	2/2 (100)[b]	2/4 (50)	3/4 (75)[b]	1/6 (17)

Part B: Opioid-tolerant Patients		
Fentanyl Dose Number	**Placebo (N = 8)**	**Buprenorphine[a] (N = 8)**
1	0/8 (0)	0/8 (0)
2	2/8 (25)	0/8 (0)
3	1/6 (17)	0/8 (0)
4	3/4 (75)[b]	0/8 (0)

Main Results:

- Fentanyl reduced V_E
- Bupe attenuated reduction in V_E
- Presence of bupe was not fully protective

High-dose Buprenorphine

I. Risk of respiratory depression?

II. Treatment of precipitated withdrawal

III. Induction efficacy?

Case reports

Drug and Alcohol REVIEW

Drug and Alcohol Review (May 2021), 40, 567–571
DOI: 10.1111/dar.13228

BRIEF REPORT

Managing opioid withdrawal precipitated by buprenorphine with buprenorphine

BRIDGET OAKLEY[1], HESTER WILSON[1,2], VICTORIA HAYES[1,2] & NICHOLAS LINTZERIS[1,3]

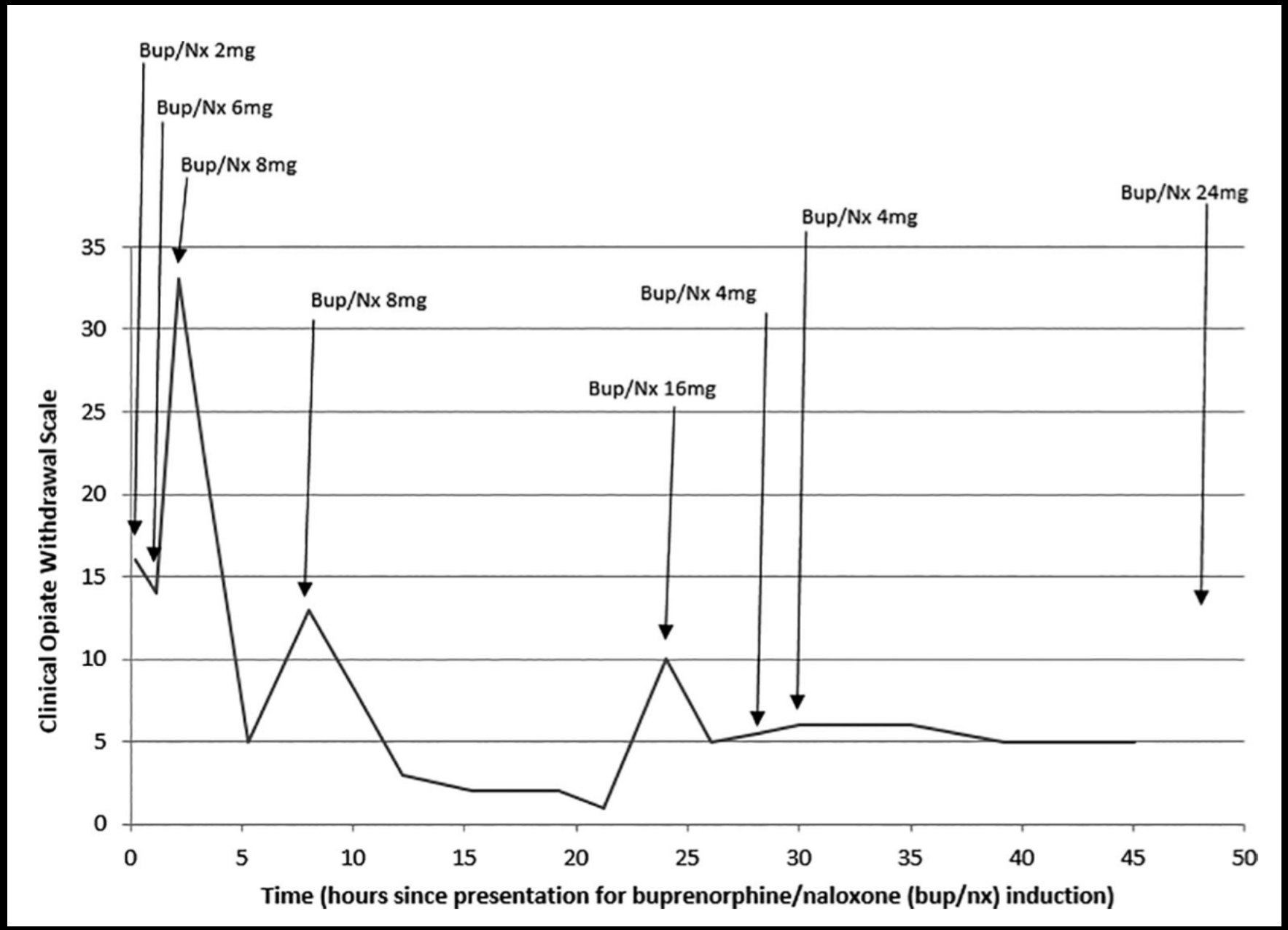
Single case report:

-Pt with OUD reported heroin use 29 hrs earlier

-COWS 16→ 2mg bupe → COWS 14→ 6mg bupe→ COWS 33

-Improvement after 16mg. Day 1= 24 mg bupe

-Later reported taking 10 mg methadone < 1 week prior to induction


Bup/Nx 2mg
Bup/Nx 6mg
Bup/Nx 8mg
Bup/Nx 24mg
Bup/Nx 4mg
Bup/Nx 8mg
Bup/Nx 4mg
Bup/Nx 16mg
Clinical Opiate Withdrawal Scale
0
5
10
15
20
25
30
35
0
5
10
15
20
25
30
35
40
45
50
Time (hours since presentation for buprenorphine/naloxone (bup/nx) induction)

Family Practice, 2021, 1–3
doi:10.1093/fampra/cmab073

OXFORD

Case Report

A case of buprenorphine-precipitated withdrawal managed with high-dose buprenorphine

Thomas H N Quattlebaum[a,*], Miki Kiyokawa[b,c] and Kayla A Murata[a]

Single case report:

-Pt with OUD, daily oxycodone > 70 mg (Oxy ER 20 mg TID + IR prn)

-Home induction

-17 hours after last oxy ER, began bupe induction, 4 mg→ 30 min later= worse

-Serial doses up to 16 mg → worse→ to the ER (COWS 25)

-Better after total day 1: 20 mg

-Discharged the following day on 20 mg QD

-5 months later, still doing good with 16 mg daily

High-dose Buprenorphine

I. Risk of respiratory depression?

II. Treatment of precipitated withdrawal

III. Induction efficacy? *Case reports*

Drug and Alcohol REVIEW

APSAD

Drug and Alcohol Review (February 2020), 39, 135–137
DOI: 10.1111/dar.13017

BRIEF REPORT

High-dose buprenorphine for treatment of high potency opioid use disorder

MARLON DANILEWITZ[1,2] & MARK McLEAN[1,3]

29 y/o woman with OUD, non-pharmaceutical fentanyl
Inpatient treatment, initial COWS 14

- Day 1 bupe= 16 mg (end of day COWS 12)
- Day 2 bupe= 30 mg (end of day COWS 5)
- Day 3 bupe= 32 mg (end of day COWS 2)
- Day 4 bupe= 40 mg (end of day COWS 3)
- Day 5 bupe= 40 mg (discharge dose)

Treatment of Opioid Use Disorder Attributed to Fentanyl With High-Dose Buprenorphine *A Case Report*

Journal of Clinical Psychopharmacology • Volume 41, Number 1, January/February 2021

- 29 y/o hx of OUD x 9 years
- Non-pharmaceutical fentanyl (1,350 MME)
- 30 hours post-exposure, COWS 13
- 32 mg bupe needed to control WD and cravings

TABLE 1. COWS Scoring, Total Daily Dosing of Buprenorphine/Naloxone, and Adjunctive Therapies

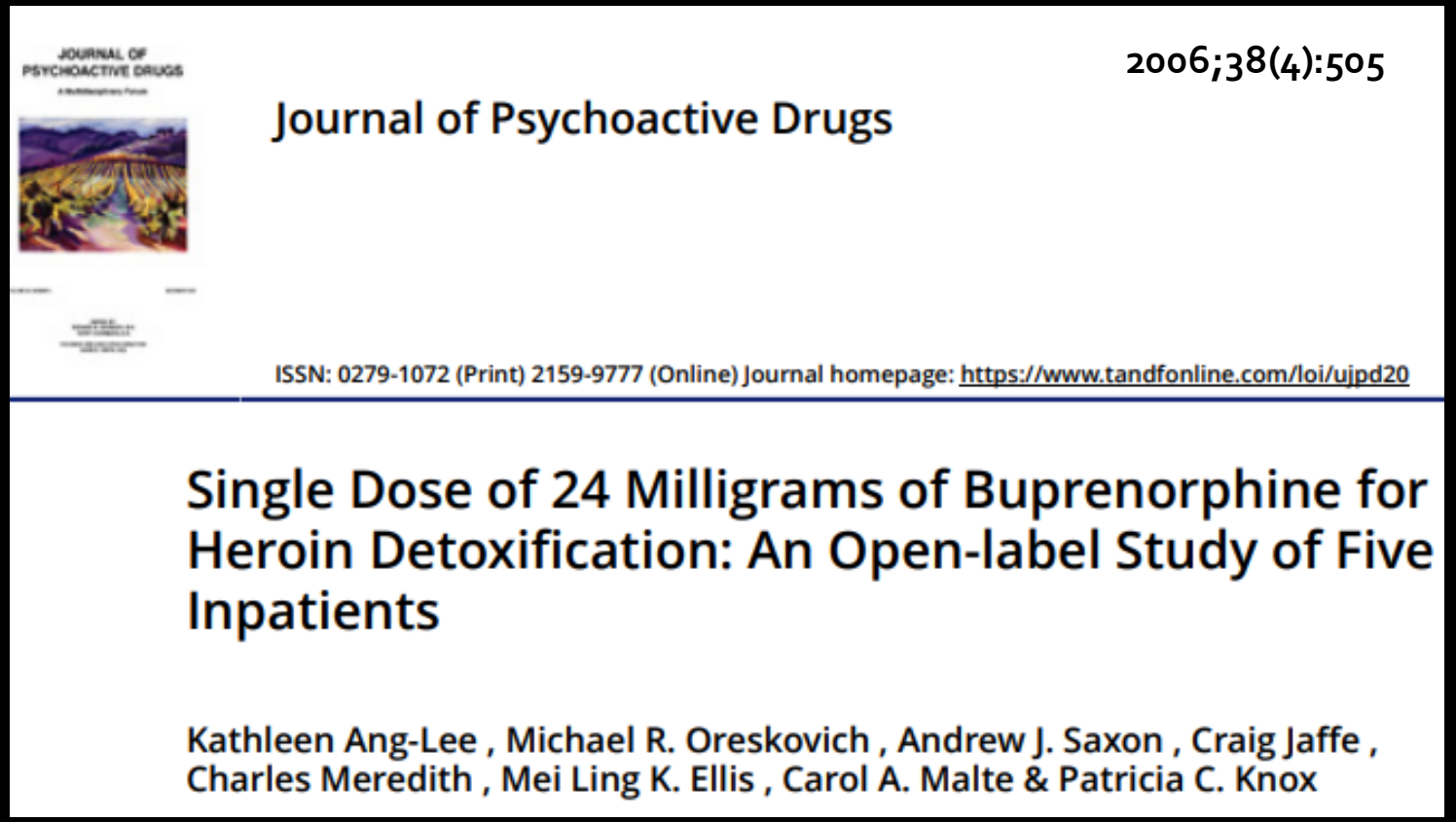
Day	COWS, AM	COWS, PM	Buprenorphine/Naloxone, Total Daily Dose, mg	Baclofen 10 mg PRN, No. Doses	Clonidine 0.1 mg PRN, No. Doses
0	13	12	8	3	2
1	6	5	8	1	2
2	9	2	8	3	2
3	15	8	20	3	2
4	9	7	20	3	3
5	9	3	24	2	1
6	3	6	24	2	2
7	3	3	32	0	1
8	1	3	32	1	1
9	0	1	32	0	0
10	1	-	16*	0	0

High-dose Buprenorphine

I. Risk of respiratory depression?

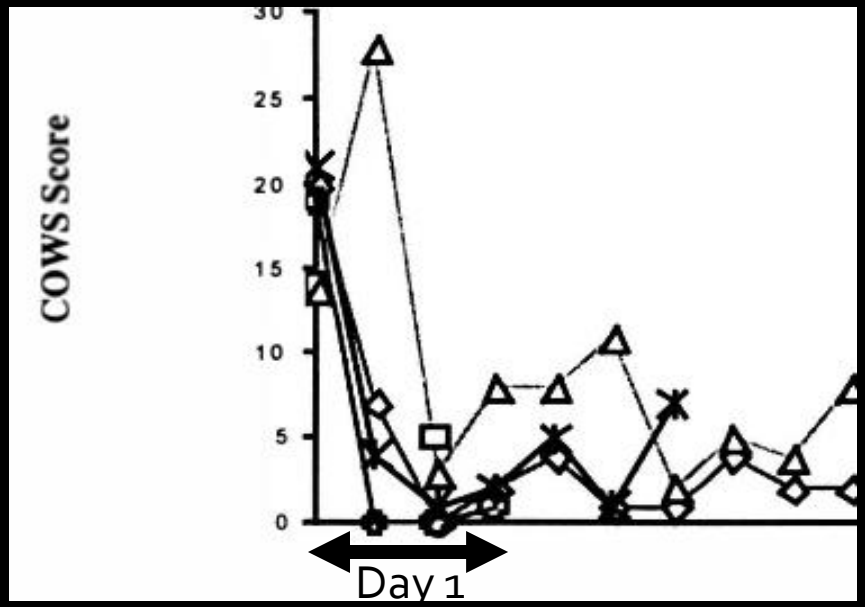
II. Treatment for precipitated withdrawal

III. Induction efficacy? *Case Series/Studies*

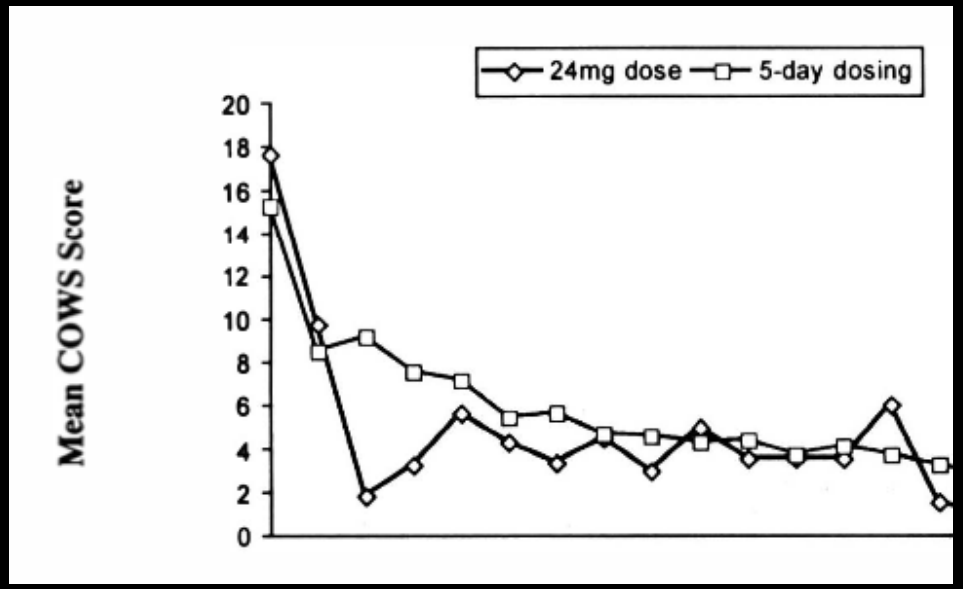


Case Series

- n=5 vs historical controls, n=20
- Inpatient, supervised detox, COWS > 13
- 24 mg Bupe SL induction



One patient had precipitated withdrawal
-Improved in 4 hours



The 24 mg group appears to have a faster normalization compared to escalating Bupe over 5 days

- Higher doses (≥ 16mg) = lower illicit use and increased retention

Mattick. *Cochrane Database of Systematic Reviews* 2014, Issue 2.

The American Journal on Addictions, 24: 667–675, 2015

ISSN: 1055-0496 print / 1521-0391 online
DOI: 10.1111/ajad.12288

Treatment Outcomes in Opioid Dependent Patients With Different Buprenorphine/Naloxone Induction Dosing Patterns and Trajectories

Petra Jacobs, MD,[1] Alfonso Ang, PhD,[2] Maureen P. Hillhouse, PhD,[2]
Andrew J. Saxon, MD,[3] Suzanne Nielsen, PhD,[4] Paul G. Wakim, PhD,[5]
Barbara E. Mai, PhD,[6] Larissa J. Mooney, MD,[2] Jennifer S. Potter, PhD,[7]
Jack D. Blaine, MD[1]

Prospective Observational Study:

- Secondary analysis of START Data
- Different induction trajectories in the first 3 days
- Outcomes @ different induction dosing

- Bupe > 16 mg had less dropout and adverse events at 28 days
- Outcomes better with higher doses

Ahmadi *et al. Trials* (2018) 19:675
https://doi.org/10.1186/s13063-018-3055-z

Trials

RESEARCH Open Access

Single high-dose buprenorphine for opioid craving during withdrawal

Jamshid Ahmadi[1*], Mina Sefidfard Jahromi[1], Dara Ghahremani[2] and Edythe D. London[2,3,4]

RCT

- Single buprenorphine dose for opioid withdrawal
- Gave 32 mg, 64 mg or 96 mg
- Observed *craving scores* for the next 5 days

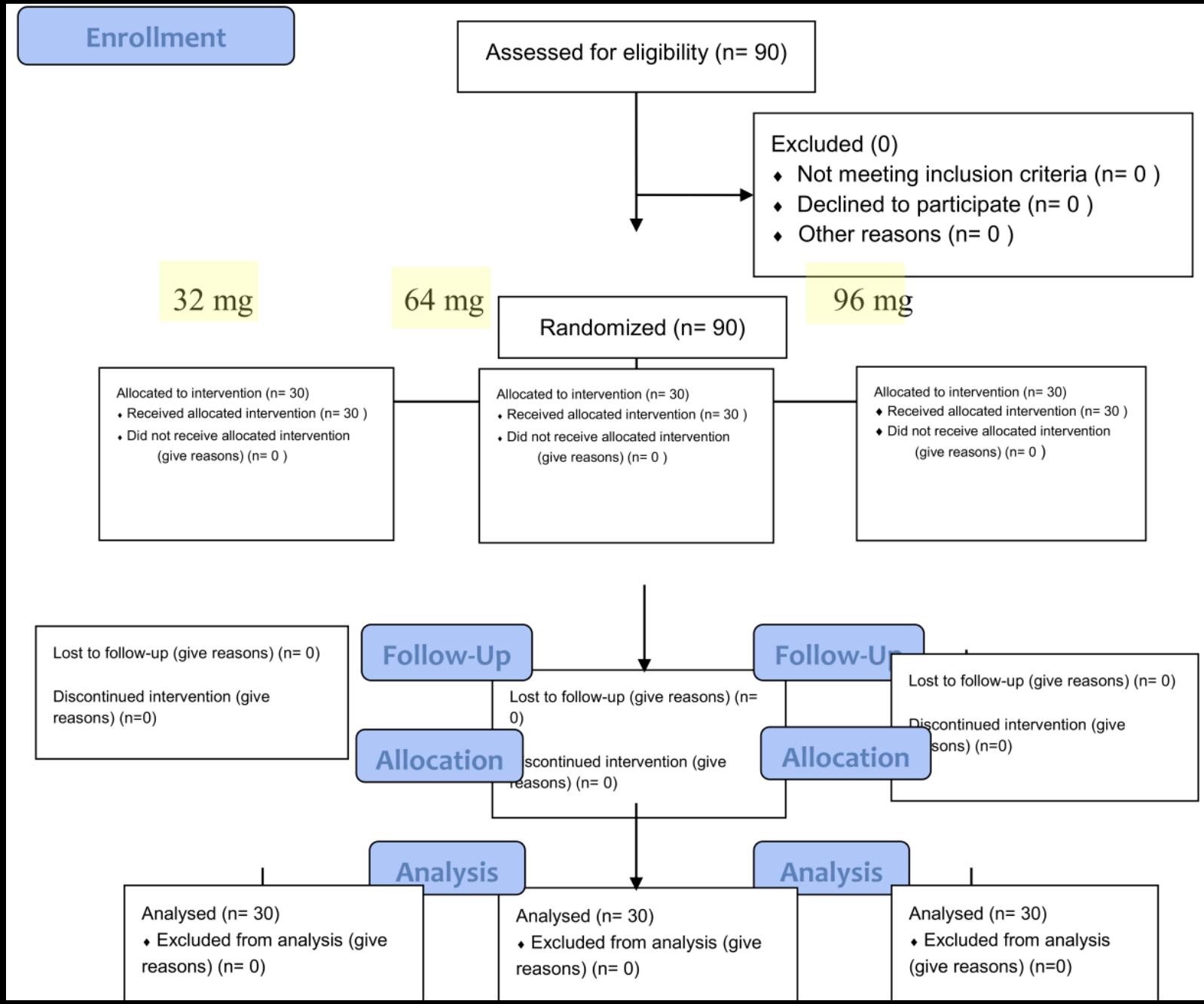

Enrollment
Assessed for eligibility (n= 90)
Excluded (0)
Not meeting inclusion criteria (n= 0)
Declined to participate (n= 0)
Other reasons (n= 0)
32 mg
64 mg
96 mg
Randomized (n= 90)
Allocated to intervention (n= 30)
Received allocated intervention (n= 30)
Did not receive allocated intervention (give reasons) (n= 0)
Allocated to intervention (n= 30)
Received allocated intervention (n= 30)
Did not receive allocated intervention (give reasons) (n= 0)
Allocated to intervention (n= 30)
Received allocated intervention (n= 30)
Did not receive allocated intervention (give reasons) (n= 0)
Lost to follow-up (give reasons) (n= 0)
Discontinued intervention (give reasons) (n=0)
Follow-Up
Follow-Up
Lost to follow-up (give reasons) (n= 0)
Allocation
scontinued intervention (give reasons) (n= 0)
Allocation
Lost to follow-up (give reasons) (n= 0)
Discontinued intervention (give sons) (n=0)
Analysis
Analysis
Analysed (n= 30)
Excluded from analysis (give reasons) (n= 0)
Analysed (n= 30)
Excluded from analysis (give reasons) (n= 0)
Analysed (n= 30)
Excluded from analysis (give reasons) (n=0)

Table 3 Craving scores (means and standard deviations) of the three groups

Group (Buprenorphine, mg)	32	64	96
Day	$n = 30$	$n = 30$	$n = 30$
Baseline	7.23 ± 3.51	6.93 ± 3.54	7.56 ± 3.53
Day 1	4.46 ± 3.95	4.96 ± 2.90	4.00 ± 2.75
Day 2	2.56 ± 3.23	3.03 ± 2.23	1.00 ± 1.74
Day 3	1.70 ± 2.39	0.900 ± 1.37	0.366 ± 0.927
Day 4	1.23 ± 1.86	0.300 ± 0.749	0.233 ± 0.727
Day 5	0.700 ± 1.14	0.100 ± 0.402	0.00 ± 0.00

Results:
-64 mg worked better than 32 mg
-96 mg did not work better than 64 mg

Adverse effects

To ensure safety, side effects, vital signs, respiration, and gastrointestinal effects were measured and monitored every hour for the first day, and then every 6 h. Nine patients developed notable side effects. Two (both in the 96-mg group) developed significant hypotension (blood pressure of 75/50 and 80/45, respectively) and were treated with hydration. Two (both in the 32-mg group) developed nausea. Five (two in the 64-mg group and three in the 96-mg group) developed both nausea and vomiting. Patients who had nausea or vomiting were treated with antiemetic medications. No severe respiratory, cardiovascular, or gastrointestinal adverse effects were observed.

Buprenorphine Field Initiation of ReScue Treatment by Emergency Medical Services (Bupe FIRST EMS): A Case Series

Gerard G. Carroll, Deena D. Wasserman, Aman A. Shah, Matthew S. Salzman, Kaitlan E. Baston, Rick A. Rohrbach, Iris L. Jones & Rachel Haroz

Case Series: Pre-hospital

- n= 18
- Post-naloxone rescue, COWS > 7
- Buprenorphine 16 mg SL
- Next-day follow-up

Carroll. (2021) *Prehospital EmergencyCare*, 25:2, 289-293

- All 18 improved
- No P.O.W. observed
- 3 example cases summarized below

TABLE 1. Patient Characteristics and Treatment

Patient	Naloxone given	Initial COWS	Buprenorphine given	Repeat COWS	1st visit	30 day retention
A	2 mg IM	13	16 mg	3	Yes	Yes
B	2mg IM	15	16-32 mg	3	Yes	No
C	4 mg IN	12	16 mg	4	Yes	Yes

JAMA Network Open

Original Investigation | Substance Use and Addiction

High-Dose Buprenorphine Induction in the Emergency Department for Treatment of Opioid Use Disorder

Andrew A. Herring, MD; Aidan A. Vosooghi, MS; Joshua Luftig, PA; Erik S. Anderson, MD; Xiwen Zhao, MS; James Dziura, PhD; Kathryn F. Hawk, MD, MHS; Ryan P. McCormack, MD, MS; Andrew Saxon, MD; Gail D'Onofrio, MD, MS

JAMA Network Open. 2021;4(7):e2117128

Retrospective, observational study

- N= 579
- ED induction for OUD

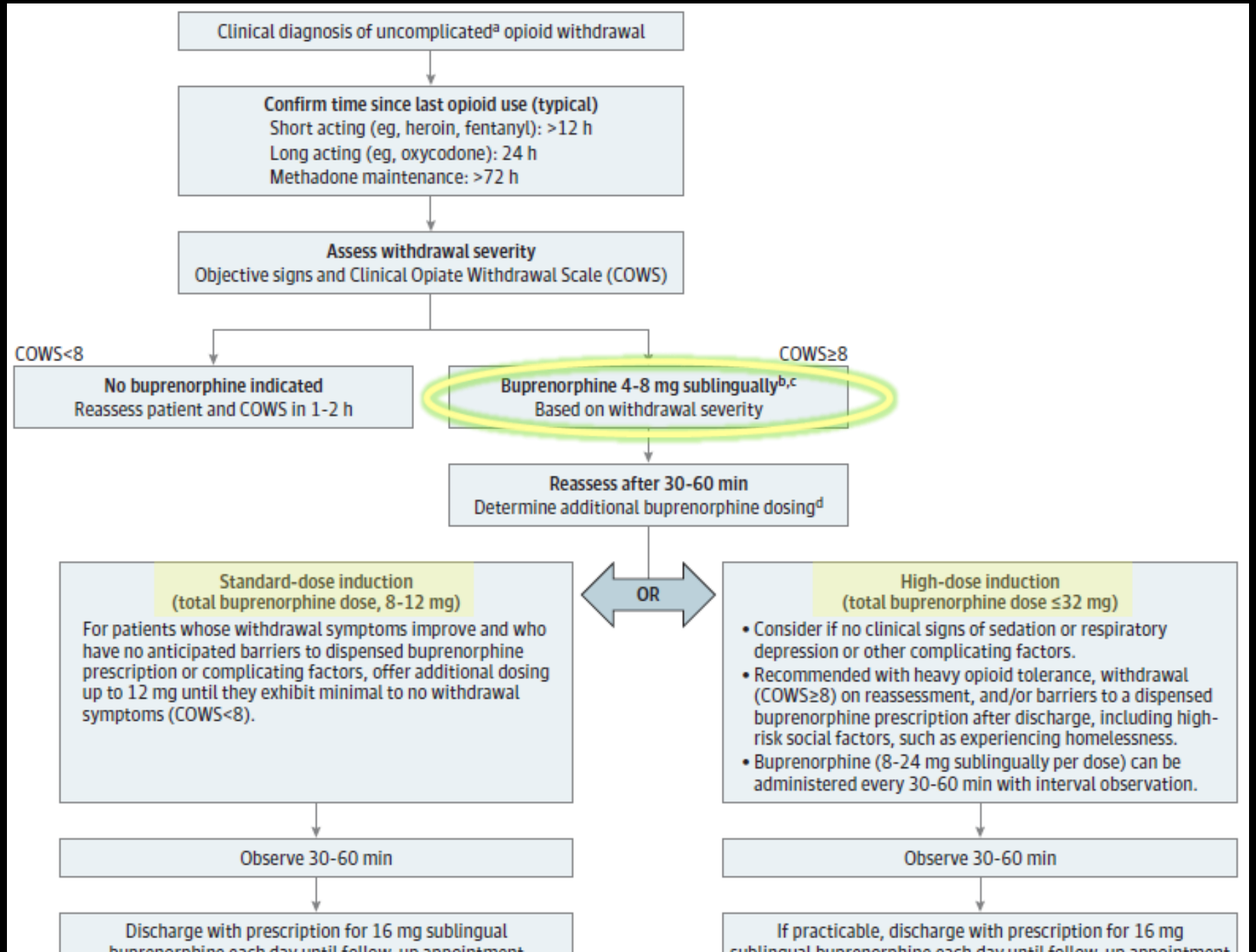
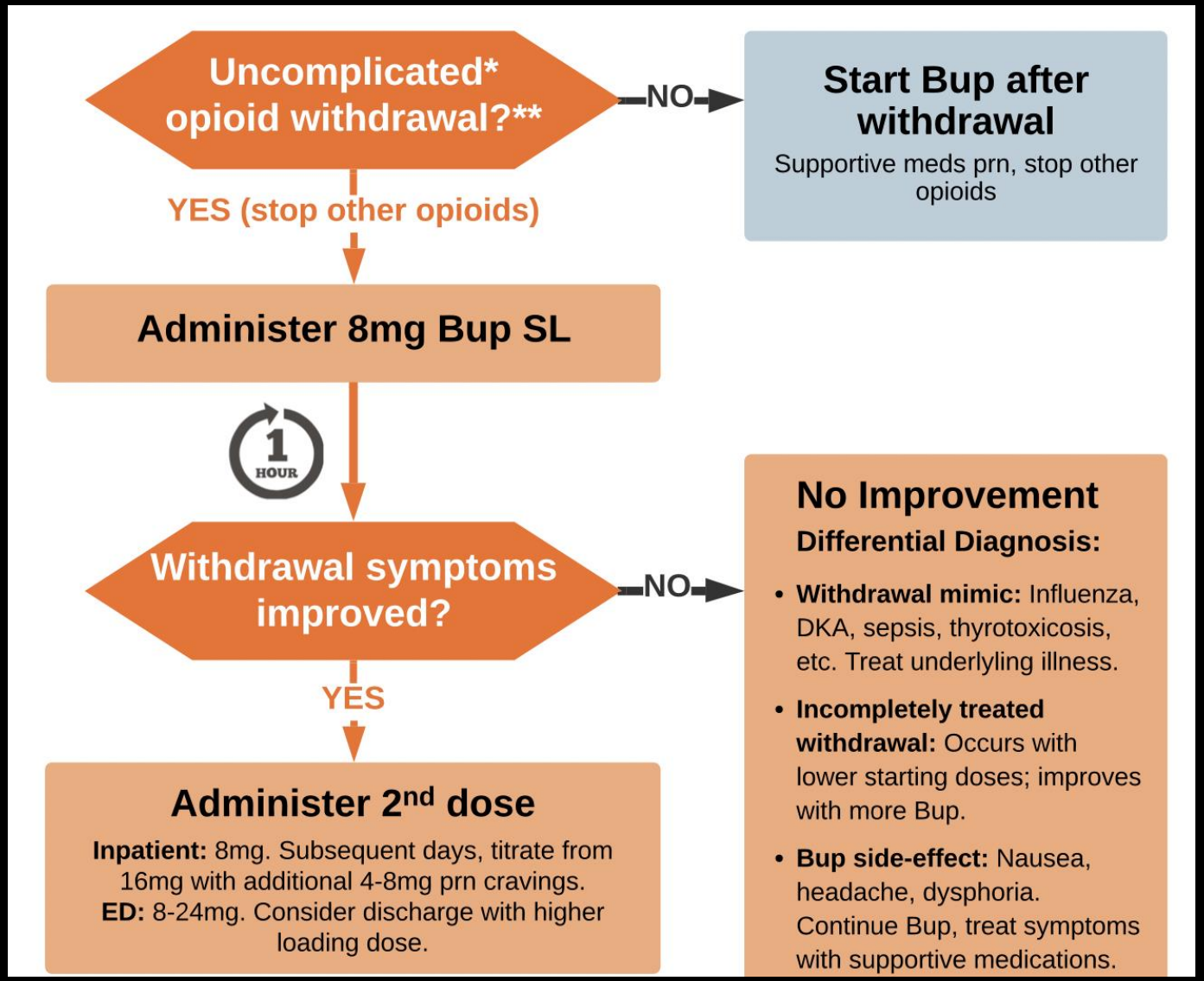

Clinical diagnosis of uncomplicated[a] opioid withdrawal
Confirm time since last opioid use (typical)
Short acting (eg, heroin, fentanyl): >12 h
Long acting (eg, oxycodone): 24 h
Methadone maintenance: >72 h
Assess withdrawal severity
Objective signs and Clinical Opiate Withdrawal Scale (COWS)
COWS<8
No buprenorphine indicated
Reassess patient and COWS in 1-2 h
COWS≥8
Buprenorphine 4-8 mg sublingually[b,c]
Based on withdrawal severity
Reassess after 30-60 min
Determine additional buprenorphine dosing[d]
Standard-dose induction
(total buprenorphine dose, 8-12 mg)
For patients whose withdrawal symptoms improve and who have no anticipated barriers to dispensed buprenorphine prescription or complicating factors, offer additional dosing up to 12 mg until they exhibit minimal to no withdrawal symptoms (COWS<8).
OR
High-dose induction
(total buprenorphine dose ≤32 mg)
• Consider if no clinical signs of sedation or respiratory depression or other complicating factors.
• Recommended with heavy opioid tolerance, withdrawal (COWS≥8) on reassessment, and/or barriers to a dispensed buprenorphine prescription after discharge, including high-risk social factors, such as experiencing homelessness.
• Buprenorphine (8-24 mg sublingually per dose) can be administered every 30-60 min with interval observation.
Observe 30-60 min
Observe 30-60 min
Discharge with prescription for 16 mg sublingual
If practicable, discharge with prescription for 16 mg

Table 2. Clinical Characteristics of Sublingual Buprenorphine Induction for Opioid Use Disorder During Emergency Department Visits

Characteristic	Total buprenorphine dose sublingual					
	2-6 mg (n = 55)	8 mg (n = 136)	10-12 mg (n = 22)	16 mg (n = 106)	20-24 mg (n = 122)	≥28 mg (n = 138)
Adverse events, No. (%)						
Precipitated withdrawal	0	4 (2.9)	0	0	0	1 (0.7)
Hospitalization	5 (9.1)	4 (2.9)	1 (4.5)	3 (2.8)	8 (6.6)	4 (2.9)

Bottom line:
-Patients did well with high-dose
-Zero cases of serious ADE

Starting buprenorphine in the ED

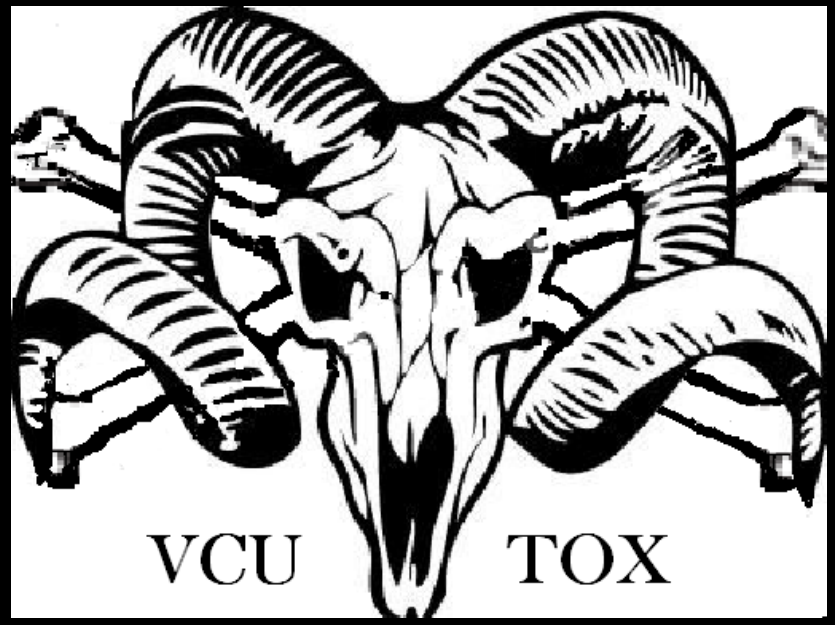


https://cabridge.org/

Summary

Higher buprenorphine dosing:

- Evidence is weak…
- May result in lower incidence of P.O.W.
- More rapid & complete termination of W/D
  - Especially for pts with chronic fentanyl use
- May result in improved treatment retention
- No clear signal of harm



COMMENTS?
QUESTIONS?

Disclosures

Brandon Wills, DO has no financial conflicts of interest to disclose.

There is no commercial or in-kind support for this activity.

Case Presentation #1

- 12:35-12:55 [20 min]
  - 5 min: Presentation
  - 2 min: Clarifying questions- Spokes
  - 2 min: Clarifying questions – Hub
  - 2 min: Recommendations – Spokes
  - 2 min: Recommendations – Hub
  - 5 min: Summary - Hub

Reminder: Mute and Unmute to talk
*6 for phone audio
Use chat function for questions

Main Question

Outpatient microinduction for a patient taking methadone

Demographic Information

A 41-year-old female with OUD & cocaine use disorder presents requesting treatment with buprenorphine. Pt currently takes methadone 30 mg daily, states she is not happy with it, continues to use heroin daily despite being compliant with methadone. Pt. has previously had success with buprenorphine and would like to re-start this medication.

Background Information

Denies any past medical or psychiatric history.

Previous Interventions

As above.

Case Studies

- Case studies
  - Submit: www.vcuhealth.org/echo
  - Receive feedback from participants and content experts
  - Earn **$100** for presenting

Thank You

The success of our telehealth program depends on our participants and those who submit case studies to be discussed during clinics. We recognize the following providers for their contributions:

- **Ademola Adetunji, NP** from Fairfax County CSB
- **Tara Belfast-Hurd, MBA-PA** from Department of Behavioral Health and Developmental Services
- **Michael Bohan, MD** from Meridian Psychotherapy
- **Ramona Boyd, NP** from Health Wagon
- **Diane Boyer, DNP** from Region Ten CSB
- **Melissa Bradner, MD** from VCU Health
- **Kayla Brandt, B.S.** from Crossroads Community Service Board
- **Candace Fletcher, PharmD Candidate** from Hopkins Medical Association
- **Susan Cecere, LPN** from Hampton Newport News
- **Kimberly Dexter, DNP** from Hampton Newport News CSB
- **Shokoufeh Dianat, DO, MAS** from Virginia League from Planned Parenthood
- **Candace Fletcher, PharmD** from Hopkins Medical Association
- **Michael Fox, DO** from VCU Health
- **Shannon Garrett, FNP** from West Grace Health Center
- **LaShawna Giles, MSW** from Hampton Newport News CSB
- **Sharon Hardy, BSW, CSAC** from Hampton-Newport News CSB
- **Kara Howard, NP** from Southwest Montana Community Health Center
- **Sunny Kim, NP** from VCU Health
- **Heidi Kulberg, MD** from Meridian Health
- **Thokozeni Lipato, MD** from VCU Health
- **Caitlin Martin, MD** from VCU Health
- **Jennifer Melilo, FNP** from Chesapeake Integrated Behavioral Health
- **Dawn Merritt, QMHP** from Eastern Shore CSB
- **Maureen Murphy-Ryan, MD** from AppleGate Recovery
- **Faisal Mohsin, MD** from Hampton-Newport News CSB
- **Jeromy Mullins, PharmD Candidate** from Hopkins Medical Association
- **Stephanie Osler, LCSW** from Children's Hospital of the King's Daughters
- **Davina Pavie, QMHP** from Hanover County CSB
- **Winona Pearson, LMSW** from Middle Peninsula Northern Neck CSB
- **Jennifer Phelps, BS, LPN** from Horizons Behavioral Health
- **Crystal Phillips, PharmD** from Appalachian College of Pharmacy
- **Jashanda Poe, MA** from Rappahannock Area CSB
- **Tierra Ruffin, LPC** from Hampton-Newport News CSB
- **Manhal Saleeby, MD** from VCU Health Community Memorial Hospital
- **Jenny Sear-Cockram, NP** from Chesterfield County Mental Health Support Services
- **Elizabeth Signorelli-Moore, LPC** from Region 1 CSB
- **Amber Sission, QMHP** from Eastern Shore CSB
- **Daniel Spencer, MD** from Children's Hospital of the King's Daughters
- **Linda Southall, QMHP** from Alleghany Highlands CSB
- **Heather Stone, PhD, LCSW** from Central Virginia Health Services of Petersburg
- **Cynthia Straub, FNP-C, ACHPN** from Memorial Regional Medical Center
- **Saba Suhail, MD** from Ballad Health
- **Michelle Tanner, LPC** from Hanover County CSB
- **Barbara Trandel, MD** from Colonial Behavioral Health
- **Bill Trost, MD** from Danville-Pittsylvania Community Service
- **Art Van Zee, MD** from Stone Mountain Health Services
- **Ashley Wilson, MD** from VCU Health
- **Sarah Woodhouse, MD** from Chesterfield Mental Health
- **Susan Mayorga, BA, CBIS** from Community Health Center of the New River Valley
- **Jordan Siebert, Peer Recovery Specialist** from Daily Planet Health Services

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- To claim CME credit for today's session
- Feedback
  - Overall feedback related to session content and flow?
  - Ideas for guest speakers?

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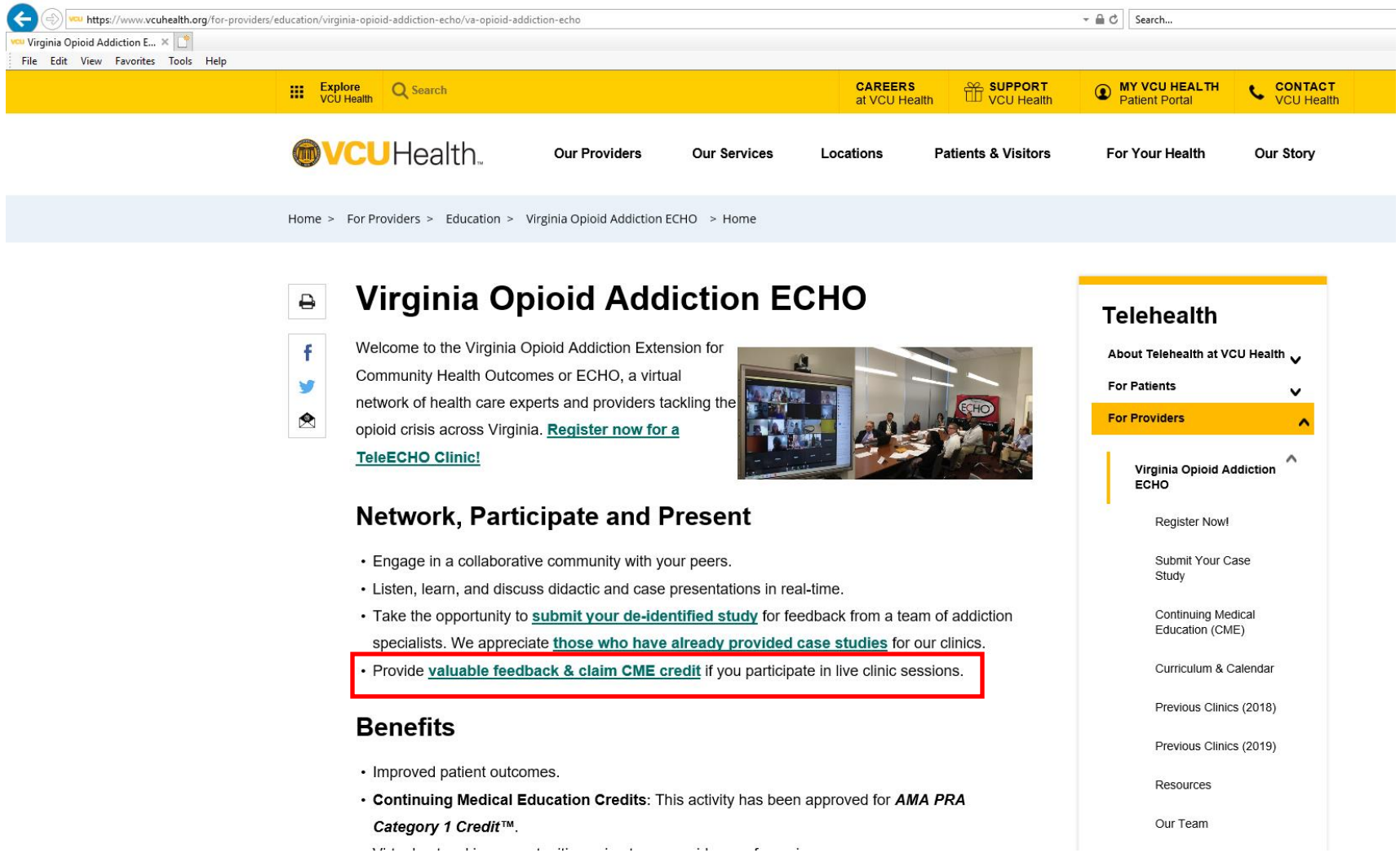

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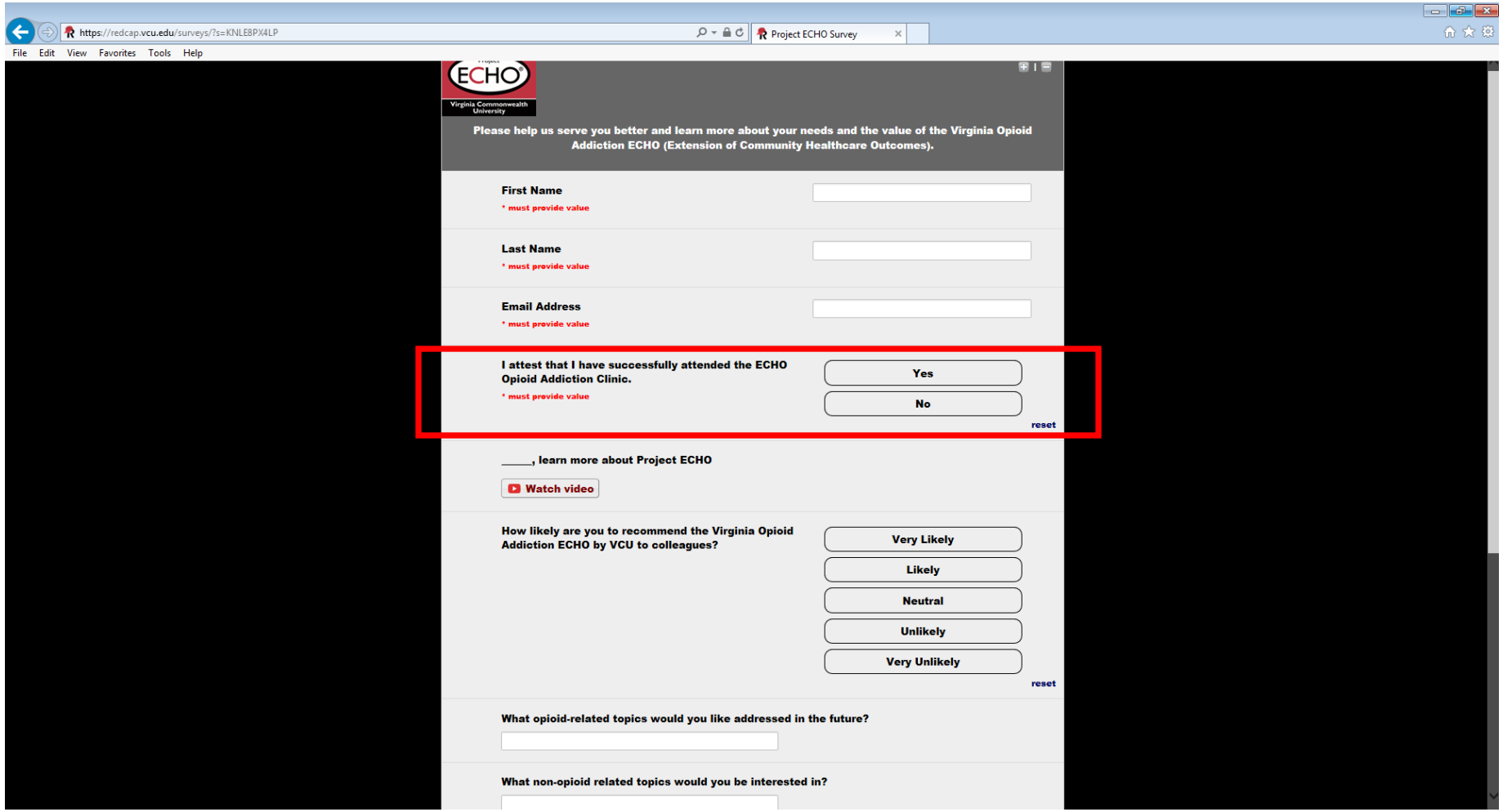

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  - To view previously recorded clinics and claim credit

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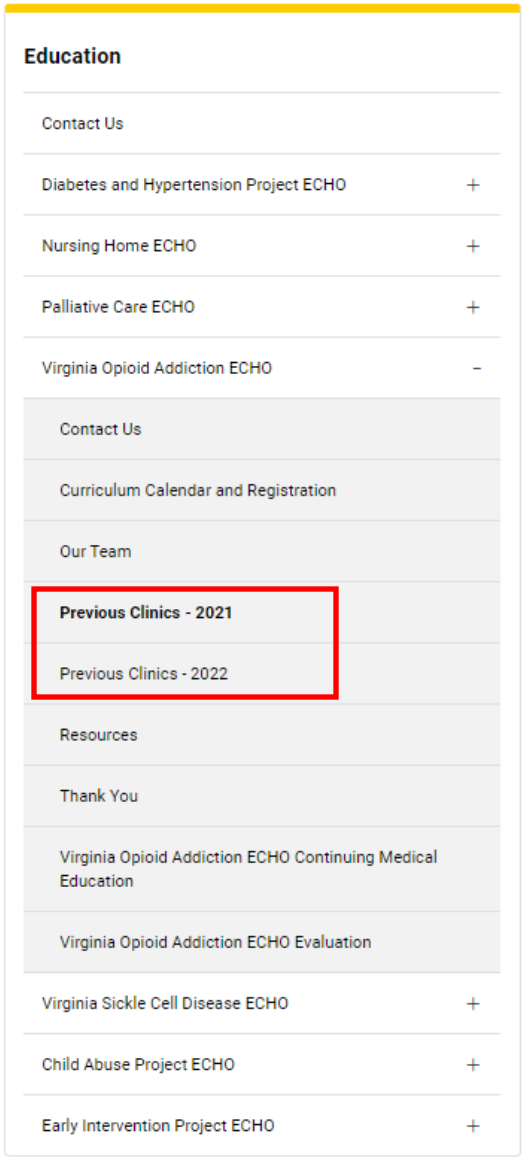

Previous Clinics - 2021

Review topics we covered in previous Virginia Opioid Addiction ECHO clinics.

January 15, Buprenorphine Taper
Presented by Masaru Nishiaoki, MD

- View Presentation
- View Video

January 29, Panel Discussion: COVID and Chronic Conditions
Panelists: Albert Arias, MD, Alex Krist, MD and Katherine Rose, MD

- View Presentation
- View Video

February 12, Grief Impacting Recovery
Presented by Courtney Holmes, PhD

- View Presentation
- Video Video

February 26, Virginia Drug Court System
Presented by Melanie Meadows

- View Presentation
- View Video

March 12, COVID and Recovery: Panel Discussion
Presented by Tom Bannard, MBA Omri Morris, CPRS Raymond Barnes, CPRS Erin Trinh, CPRS

- View Presentation
- View Video

March 26, Effects of Pharmacology on Cognitive Function
Presented by Gerry Moeller, MD

- View Presentation
- View Video
- View Resource

April 9, PropER Clinic and SUD Virtual Bridge Clinic: Linking Patients from ED to PCP and SUD Care
Presented by Taruna Aurora, MD and Brandon Wills, MD

- View Presentation
- View Video

VCU Virginia Opioid Addiction TeleECHO Clinics

Bi-Weekly Fridays - 12-1:00 pm

Mark Your Calendar --- Upcoming Sessions

April 15: Harm Reduction and Syringe Exchange	Health Brigade
April 29: Family Dynamics and SUD	William Nicoll, LPC

Please refer and register at vcuhealth.org/echo

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THANK YOU!

Reminder: Mute and Unmute to talk
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Use chat function for questions

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