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Inpatient Management of Opioid Use Disorder

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Financial Disclosures

- None

Goals of this presentation

- Addiction Medicine Consult Service – Overview
  - Who?
  - Why?
  - Indications for a substance use consult
  - Diagnosing opioid use disorder
  - Treating opioid use disorder
    - Low dose buprenorphine initiation
    - Typical buprenorphine initiation
- Discharge planning

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Jason Bourne is a 34yo male who presents to UMMC Shock Trauma after a MVA…

*** Please note this is not a real case or person ***

Addiction medicine is consulted due to urine tox positive for fentanyl

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What is a Addiction Medicine Consult Service?

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University of Maryland - Addiction Consult Service

- Started July 1988
- From January - June 2025: 1905 consults (1150 follow ups & 755 initial)
- Purpose: Addiction-specific history, motivational interviewing, withdrawal management, initiation of long-term pharmacotherapy, support with pain management, and linkage to post-hospitalization treatment

Addiction Consult Service
University of Maryland Medical Center

- Nurse Practitioners – Tiandra Tuck, Olga Hall, Kathy Holden
- Social Worker – Jason Norwood, LMSW, Substance Use Counselor, Peer Supervisors
- Addiction Medicine Peer Recovery Coaches (4)
- Trainees – Addiction Medicine fellows, Addiction Psychiatry fellows, Psychiatry PGY1, and Medical Student
- Faculty – Christopher Welsh, MD; Isabelle Seto, MD; Tracy Liu, DO; Aditi Ringwala, MD

Consults at UMMS come from….

MICU	SICU	Cardiology	Surgery: Ortho, Trauma, Transplant	Pediatrics
OB/GYN	General Medicine	Infectious Disease	Neurology	Neurosurgery

Why an Addiction Medicine Consult Service?

JAMA Internal Medicine

RCT: Hospital Addiction Consultation Service and Opioid Use Disorder Treatment

POPULATION

213 Males, 112 Females

Hospitalized adults aged ≥18 y with opioid use disorder (OUD)

Median age, 41 y

SETTINGS / LOCATIONS

Three US hospitals

INTERVENTION

325 Patients randomized

164 Substance Use Treatment and Recovery Team (START)
Addiction medicine specialist and care manager delivered motivational and addiction-focused discharge planning and follow-up calls

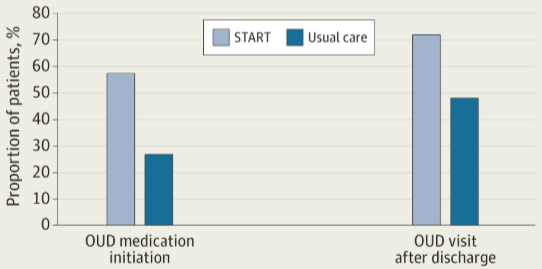
161 Usual Care
Each hospital's respective practices for managing OUD

PRIMARY OUTCOME

Proportion of patients who (1) initiated medication for OUD before discharge and (2) attended at least 1 OUD-related care visit within 30 d of hospital discharge

FINDINGS

START participants were significantly more likely to initiate medication for OUD before discharge and link to OUD-related care after discharge; adjusted risk ratios (aRRs) favored the intervention



Medication initiation
START vs usual care:
57% vs 27%, aRR, 2.10 (97.5% CI, 1.51-2.91)

OUD care visit within 30 d
START vs usual care:
72% vs 48%; aRR, 1.49 (97.5% CI, 1.15-1.93)

Ober AJ, Murray-Krezan C, Page K, et al. Hospital addiction consultation service and opioid use disorder treatment: the START randomized clinical trial. *JAMA Intern Med*. Published April 7, 2025. doi:10.1001/jamainternmed.2024.8586

JAMA Internal Medicine

RCT: Addiction Consultation Services for Opioid Use Disorder Treatment Initiation and Engagement

POPULATION

1687 Male, 628 Female

Hospital admissions of adult patients with opioid diagnoses

Mean (SD) age: 47 (12.4) y

INTERVENTION

3225 Hospital admissions analyzed

1895 Addiction consultation service
Interprofessional addiction consultation services provided during hospitalization

1330 Usual care
Treatment as usual (TAU)

SETTINGS / LOCATIONS

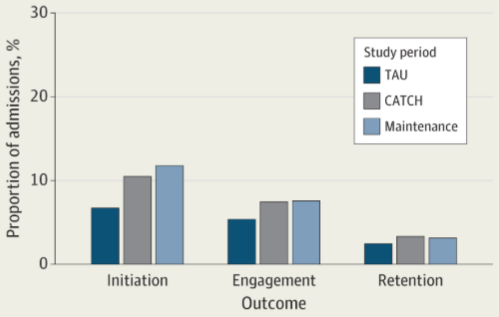
6 New York, New York, public hospitals

PRIMARY OUTCOME

Dual primary outcome consisting of medication for opioid use disorder (MOUD) treatment initiation in the first 14 d post hospital discharge and MOUD engagement for the 30 d following initiation

FINDINGS

The odds of initiating MOUD were 7.96 times higher, and the odds of engaging in treatment were 6.90 times higher, when using the interprofessional addiction consultation services (Consult for Addiction Treatment and Care in Hositals [CATCH] program)



CATCH program:
MOUD initiation, 11.0%; MOUD engagement, 7.4%
TAU:
MOUD initiation, 6.7%; MOUD engagement, 5.3%

McNelly J, Wang S, Rostam-Abadi Y, et al. Addiction consultation services for opioid use disorder treatment initiation and engagement: a cluster randomized clinical trial. *JAMA Intern Med*. Published online July 29, 2024. doi:10.1001/jamainternmed.2024.3422

When would an Addiction consult be indicated?

- At the request of the patient
- Prior to starting treatment for substance use disorder – help decide what treatment is indicated
- Help with discharge planning
- Management of intoxication and withdrawal in the context of their hospitalization
- Offer motivational interviewing

The primary team called addiction consults, but what can the team offer this patient?

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Addiction Consults:
Addressing patient in person-first language

Person-first language for talking about addiction		
Instead of…	**Use…**	**Because…**
Addict, user, substance or drug abuser, or junkie	Person with a substance use disorder (SUD), person with an opioid use disorder (OUD), or person with opioid addiction	Person-first language helps emphasize that SUD is a medical condition. It also shows that a person *has* a problem or illness, not that they *are* the problem. It doesn't blame the individual for their disorder.
Alcoholic or drunk (noun)	Person with alcohol use disorder (AUD) or person who misuses alcohol or engages in unhealthy/hazardous alcohol use	Person-first language helps emphasize that SUD is a medical condition. It also shows that a person *has* a problem or illness, not that they *are* the problem. It doesn't blame the individual for their disorder.
Former or reformed addict	Person in recovery or person who previously used drugs	Person-first language helps emphasize that SUD is a medical condition. It also shows that a person *has* a problem or illness, not that they *are* the problem. It doesn't blame the individual for their disorder.
Dirty, failing a drug test	Testing positive (on a drug screen)	Using medically accurate terminology helps people stay hopeful that they can make a change.
Habit	SUD or drug addiction	Describing an SUD as a habit may make it seem less serious than it is and may imply living with an SUD is a choice.
Abuse	Use (for illicit drugs) or misuse (for prescription medications used other than as prescribed)	The word "abuse" brings on negative judgments and associations with punishment.
Clean	Being in remission or recovery, abstinent from drugs, not drinking or taking drugs, or testing negative (on a drug screen)	Saying someone is "clean" inappropriately suggests that if they're not in recovery, they are "dirty."
Addicted baby	Baby born to a parent who used drugs while pregnant, baby with signs of withdrawal from prenatal drug exposure, newborn exposed to substances, or baby with neonatal abstinence syndrome	Babies cannot be born with addiction because addiction is a behavioral disorder. Emphasize the medical condition without judgment.

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Addiction Consults:
Addiction focused history

Addiction Assessment

Alcohol and Drug History

Substance	First Use	Last Use	Heaviest use	Route	Current Use	Withdrawal	Overdose
Cocaine: Cocaine Use							
Heroin: Heroin use							
Sedative: Sedative Use							
Tobacco: Tobacco use							
Cannabis: Cannabis use							
Hallucinogens Hallucinogen use							
Alcohol: Alcohol use							
Other: ***							

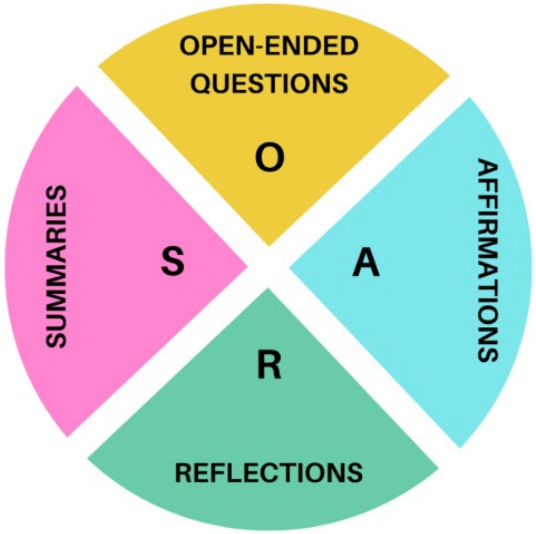
Specify if substance abuse includes any additional disorders (e.g. Sleep disorder, delirium, hallucinations):

DWI: YES ELAB/NO
Blackouts: YES ELAB/NO
DT's: YES ELAB/NO
Seizures: YES ELAB/NO
Eye-Opener: YES ELAB/NO
Hallucinations: YES ELAB/NO

Addiction Treatment History:

Longest abstinence:
Recent Abstinence:

Addiction Consults: Motivational interviewing



O: Asking open-ended questions
A: Reinforcing your appreciation that the person has opened up to you
R: Reflecting back what they have said
S: Ensures shared understanding and reinforces key topics

OARS -Miller, W. R., & Rollnick, S. 2013

ADDICTION CONSULTS: DIAGNOSIS OF OPIOID USE DISORDER

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DSM V
Opioid Use Disorder

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least 2 of the following, occurring within a 12-month period:


1. Opioids are often taken in larger amounts or over a longer period than was intended.

2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.

3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.

4. Craving, or a strong desire or urge to use opioids.

5. Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.

6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.

7. Important social, occupational, or recreational activities are given up or reduced because of opioid use.

8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of an opioid.

    NOTE: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.


11. Withdrawal, as manifested by either of the following:
    a. The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal, pp. 547 to 548).
    b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms.

    NOTE: This criterion is not considered to be met for those individuals taking opioids solely under appropriate medical supervision.

 : Impaired control

 : Social Impairment

 : Risky Use of substances

 : Pharmacological criteria

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Based on the addiction history obtained, patient is diagnosed with an opioid use disorder

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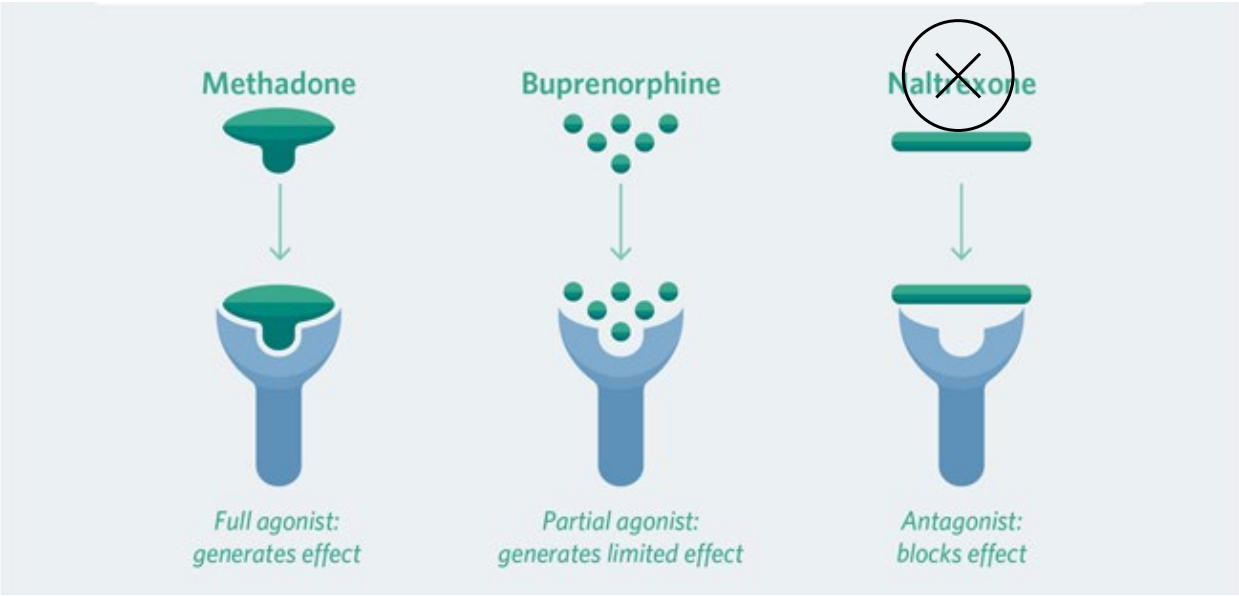
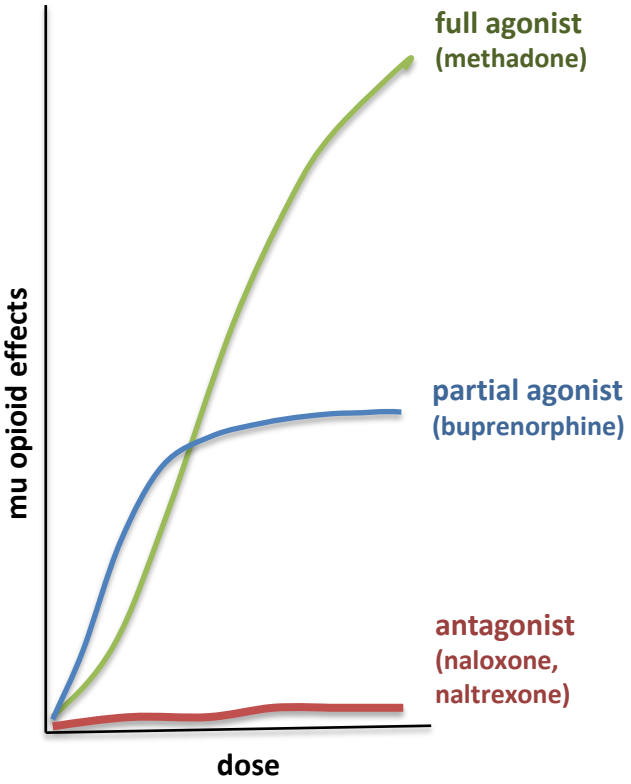
ADDICTION CONSULTS: TREATMENT FOR OPIOID USE DISORDER

FDA approved treatments for Opioid Use Disorder:



Methadone Facts

- Full opioid agonist at the mu receptor
- A synthetic opioid
- Long acting with half- life to 15-60 hours
- Weak affinity for the mu receptor
  - can be displaced by partial agonist and antagonists



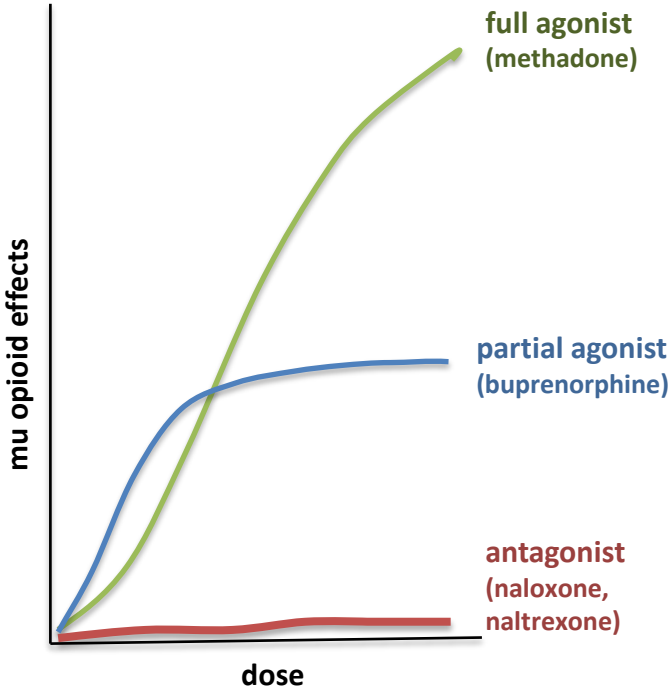
CSAT, 2005

Things to consider when patient is starting on methadone:

1- Do they have QTc prolongation or other cardiac/pulmonary conditions that may be contraindications to starting on methadone?
2- Are they able to enroll and attend an opioid treatment program?
3- Does the patient have previous experience with methadone?

Buprenorphine

- Partial agonist at the mu receptors
- Semi – synthetic
- Long acting, half-life 24-36 hours
- High affinity for mu receptors
    - cprecipitate withdrawal



SAMHSA, 2018 Orman & Keating, 2009

Major benefits of inpatient treatment:

Low dose buprenorphine initiation or traditional buprenorphine initiation

Options for starting patient on Buprenorphine

- Traditional buprenorphine initiation
  - Requires patients to be in moderate withdrawal from opioids prior to starting
  - Providers and patient have more experiences with this methodology
  - Has a higher risk of participated withdrawal
  - Requires shorter hospitalization stay
- Low dose buprenorphine initiation
  - Can be initiated while still on opioid agonist therapy
  - Enable better pain control in a hospitalized patient
  - May require a longer hospitalization stay
  - May be more challenging to have patient agree

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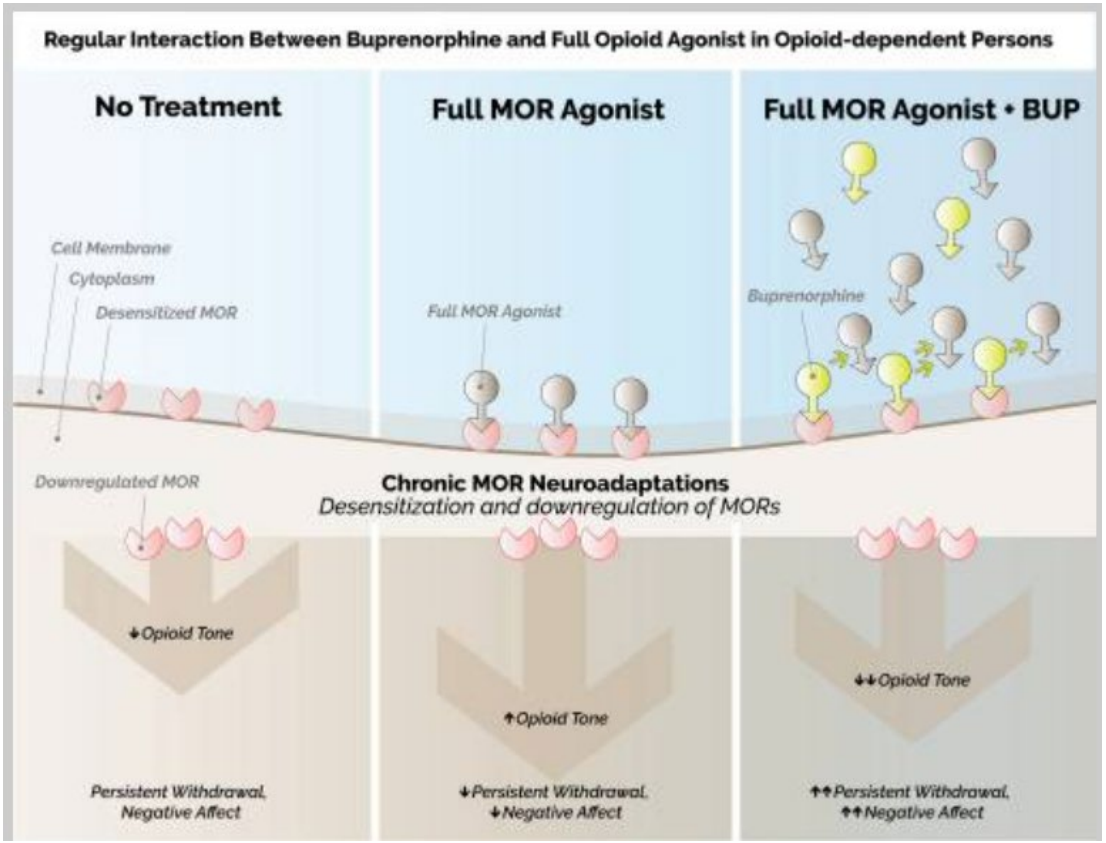

De Aquino, J.P., Parida, S. & Sofuoglu, M. Clin Drug Investig 41, 425–436 (2021).

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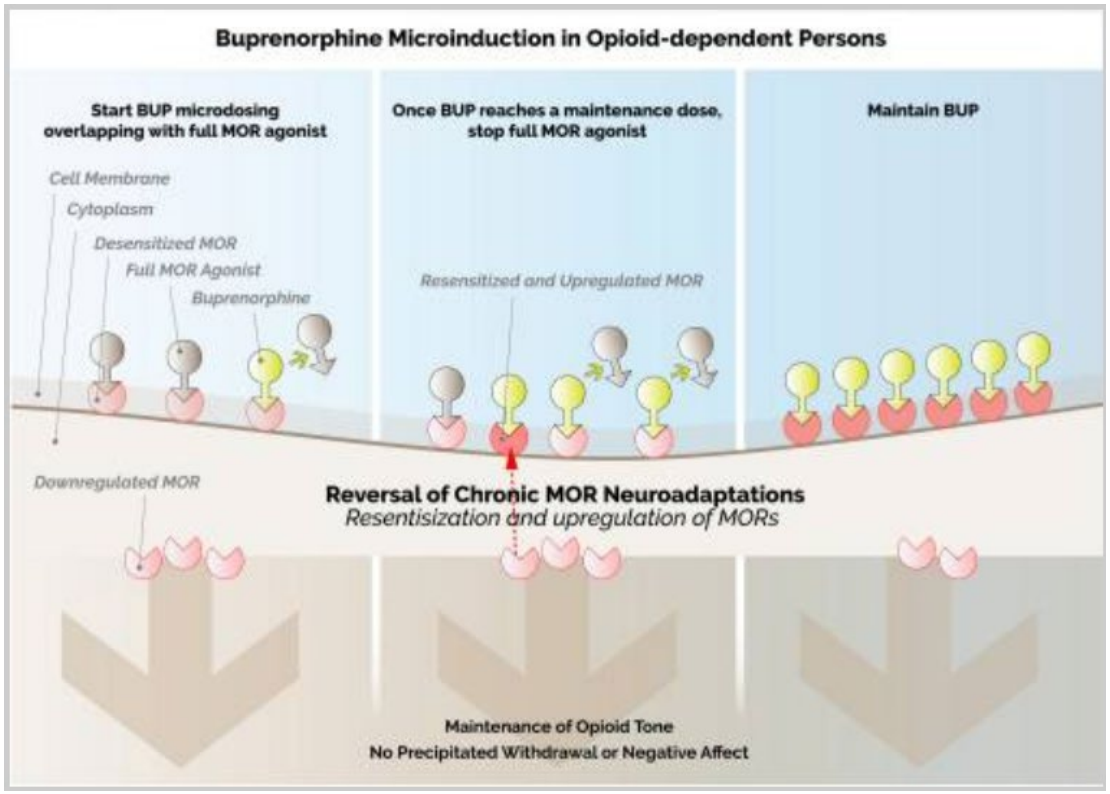

De Aquino, J.P., Parida, S. & Sofuoglu, M. Clin Drug Investig 41, 425–436 (2021).

Methadone vs Buprenorphine

- Methadone can be easier to initiate
- Patients that have previously precipitated withdrawal are less likely to want buprenorphine
- Buprenorphine can be obtained more easily (pharmacy, not just an OTP; no need for Xwaiver)
- Methadone has more cardiac side effects and respiratory depression
- Methadone can cause hypoglycemia
- Differing formulations – injectable, films, tablet, liquid
- Methadone has shown a higher retention rate than bup/naloxone in multiple studies

Nosyk B, Min JE, Homayra F, et al. Buprenorphine/Naloxone vs Methadone for the Treatment of Opioid Use Disorder. *JAMA*. 2024;332(21):1822–1831.

Which treatment to pick?

The one the patient will agree to take

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Once patient is started on treatment and ready to discharge, the next step is discharge planning

What are the next steps in transitional care planning?

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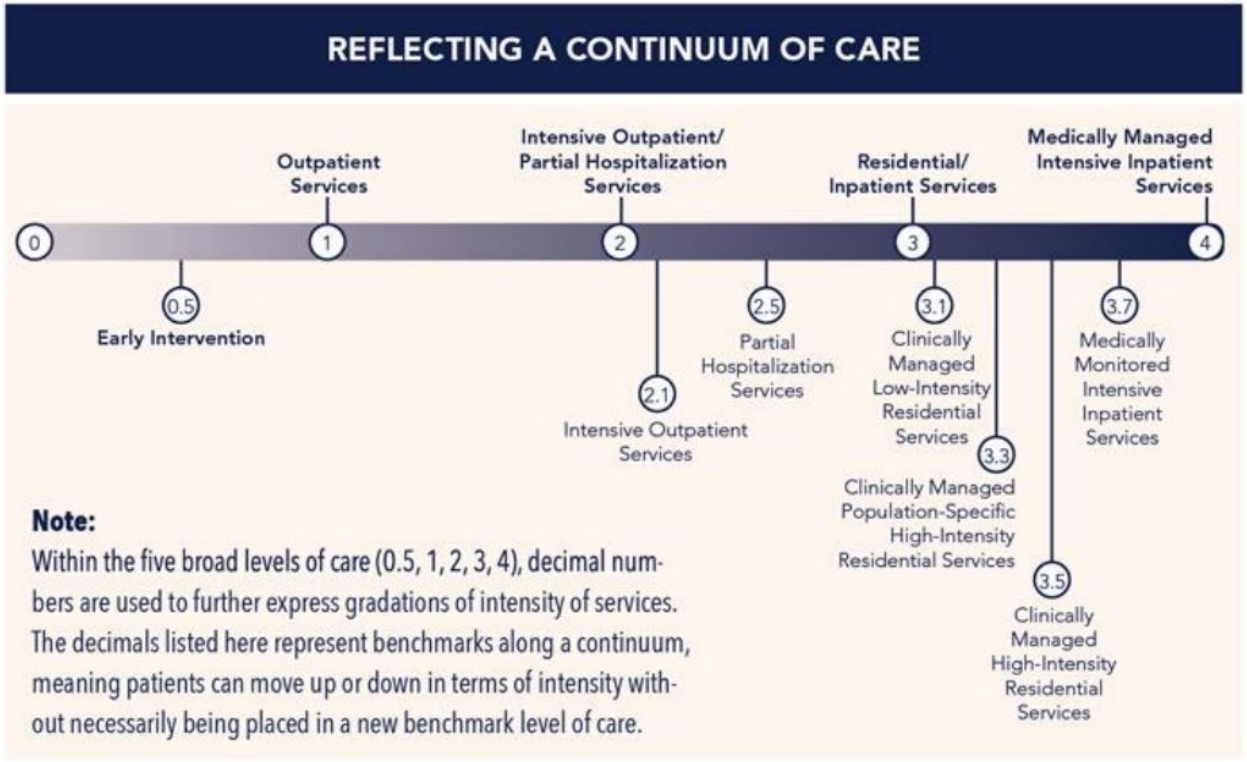
Determine ASAM Levels of CARE



The ASAM Criteria, Third Edition, p. 105

Inpatient management vs outpatient management

Rationale for Inpatient Treatment

- Respite from bad environments
- More intensive treatment/more treatment hours
- Other services available (sometimes)
- Inpatient facilitates transfer to ongoing care (further/intensive discharge planning)

Rationale for Outpatient Treatment

- More accurate assessment of ongoing drug use and coping skills - better able to assess success
- Mobilize help in the patient's natural environment
- More successful transition to continuing care

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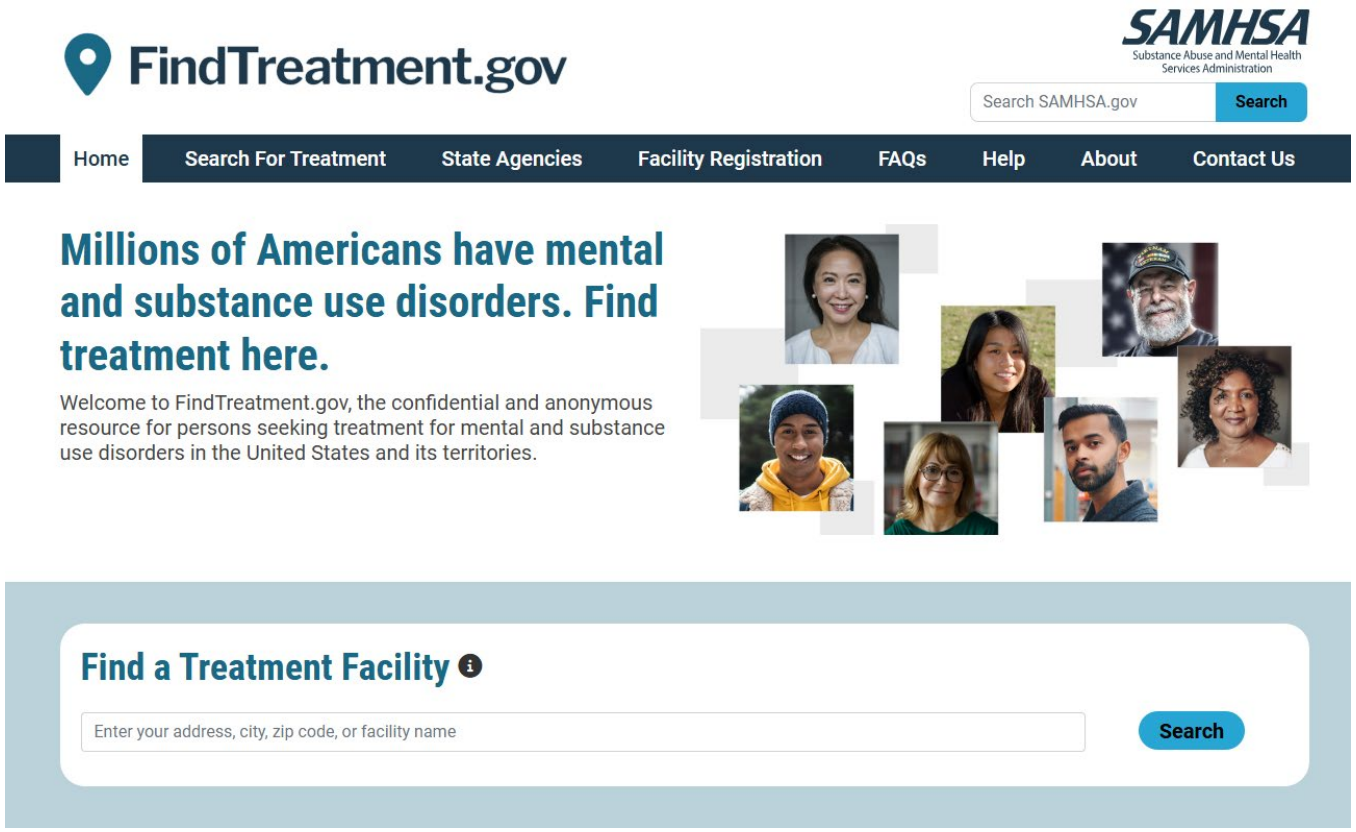
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References

Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics; 2020. Available at http://wonder.cdc.gov.

Centersfor Disease Control and Prevention (CDC). Vital signs: overdoses of prescription opioid pain relievers—United States, 1999–2008. MMWR MorbMortal Wkly Rep. 2011 Nov 4; 60(43):1487-1492.

Rudd RA, Paulozzi LJ, Bauer MJ, Burleson RW, Carlson RE, Dao D, Davis JW, Dudek J, Eichler BA, Fernandes JC, Fondario A. Increases in heroin overdose deaths—28 states, 2010 to 2012. MMWR MorbMortal Wkly Rep. 2014 Oct 3; 63(39):849.

Gladden RM, Martinez P, Seth P. Fentanyl law enforcement submissions and increases in synthetic opioid-involved overdose deaths—27 states, 2013–2014. MMWR MorbMortal Wkly Rep. 2016; 65:837–43.

McNeely J, Wang SS, Rostam Abadi Y, et al. Addiction Consultation Services for Opioid Use Disorder Treatment Initiation and Engagement: A Randomized Clinical Trial. *JAMA Intern Med.* 2024;184(9):1106–1115. doi:10.1001/jamainternmed.2024.3422

Ober AJ, Murray-Krezan C, Page K, et al. Hospital Addiction Consultation Service and Opioid Use Disorder Treatment: The START Randomized Clinical Trial. *JAMA Intern Med.* 2025;185(6):624–633.

Nosyk B, Min JE, Homayra F, et al. Buprenorphine/Naloxone vs Methadone for the Treatment of Opioid Use Disorder. *JAMA.* 2024;332(21):1822–1831. doi:10.1001/jama.2024.16954

Questions?

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Maryland Addiction Consultation Service

Provides support to prescribers and their practices, pharmacists, and healthcare teams in addressing the needs of their patients with substance use disorders and chronic pain management.

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<u>All Services are FREE</u>

- Phone consultation for clinical questions
- Education and training opportunities related to substance use disorders and chronic pain management
- Assistance with addiction and behavioral health resources and referrals
- Technical assistance to practices implementing or expanding office-based addiction treatment services
- MACS TeleECHO™ Clinics: collaborative medical education through didactic presentations and case-based learning

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Possible research questions?

- How many patients follow up post hospitalization?
- What is the retention in care?
- Challenges patient face trying to seek treatment once they leave the hospital?
- Making residents/physicians aware of addiction resources outside the hospital?