

THE  
2025-26

# State Requirements COURSE

*Opioid Management • Implicit Bias • Infection Control  
End-of-Life Care • Domestic Violence*



AMERICAN EDUCATIONAL INSTITUTE, INC.

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**David R. Victor, JD**  
CEO

Dear Registrant:

As a practicing healthcare professional, you are required not only to remain clinically current, but also to meet state mandated requirements essential for license renewal. These topics, often complex, sensitive, and evolving, are critical for safe, ethical, and equitable patient care. ***The 2025–26 State Requirements Course*** is designed to fulfill these obligations while delivering meaningful education you can apply immediately in your practice.

In 8 hours, you will receive concentrated instruction from leading experts in medicine, law, ethics, and public health. Together, they will cover required areas including implicit bias, domestic abuse, opioid management, infection control, and end-of-life care. Topics will also extend into timely issues such as the rise of fentanyl and emerging synthetic opioids, trauma-informed approaches to care, and strategies to improve communication and trust across diverse patient populations.

To help you assess your comprehension, we have included brief self-evaluations in this syllabus. These may be taken either before or after the corresponding presentations, and you will find them on pages marked with black edges.

As always, I value your feedback. Please take a few moments to complete the evaluation questions provided for each lecture, and feel free to reach out directly to our faculty with questions or comments.

Finally, I encourage you to take advantage of the diversity of professionals participating in this program. Physicians, nurses, physician assistants, and other healthcare providers are all represented, offering you the opportunity to broaden your perspective by engaging with colleagues across disciplines.

Thank you for joining us, and please accept my best wishes for a productive, engaging, and successful learning experience.

Cordially,

**AMERICAN EDUCATIONAL INSTITUTE, INC**

David R. Victor, Esq  
Chief Executive Officer

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# State Requirements COURSE

## COURSE OBJECTIVES



After completing *The 2025-26 State Requirements Course* you should have acquired the knowledge that will better enable you to better:

- Understand the historical, cultural, and clinical factors that contributed to the rise of the **opioid epidemic**.
- Recognize how **implicit bias influences clinical decision-making** and identify strategies to promote equitable care.
- Apply core ethical principles to **complex end-of-life decisions** involving patient autonomy, surrogate authority, and treatment futility.
- Recognize how **adverse childhood experiences (ACEs)** influence long-term health and identify trauma-informed strategies for clinical care.
- Implement updated clinical strategies to **manage opioid use disorder** and overdose in the context of fentanyl and emerging synthetic opioids.
- Implement evidence-based strategies to prevent **healthcare-associated infections** through infection control and antibiotic stewardship.
- Recognize the impact of **intergroup anxiety in clinical interactions** and apply strategies to improve communication and trust.
- Differentiate between the major medication-assisted treatments for **opioid use disorder** and recognize their clinical indications and limitations.

All learning objectives above address IOM/ACGME core competencies.



# State Requirements COURSE

## FACULTY DISCLOSURES



The individuals listed below have control over the content of *The 2025-26 State Requirements Course*. None of them have a financial relationship with an ineligible company.

**David R. Victor, Esq., CEO**, American Educational Institute

**Billy J. Allen**, president, American Educational Institute

**Michael P. Zintsmaster, MD**, clinical content director

**Brian S. Fuehrlein, MD, PhD**, faculty member

**Rachel D. Godsil, JD**, faculty member

**Adam D. Marks, MD, MPH, FAAHPM**, faculty member

**RJ Gillespie, MD, MHPE, FAAP**, faculty member

The following faculty members of *The 2025-26 State Requirements Course* have a financial relationship with an ineligible company:

**Nasia Safdar, MD**, John Snow – consultant

All relevant financial relationships have been mitigated prior to the start of this activity in accordance with ACCME standards.

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# FACULTY

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## **Brian Fuehrlein, MD, PhD**

Brian Fuehrlein, MD, PhD, of New Haven, Connecticut, graduated from the M.D. Ph.D. program at the University of Florida in 2008, adult psychiatry residency program at the University of Texas Southwestern Medical Center in 2012 and addiction psychiatry fellowship at Yale University in 2013. He is currently an Associate Professor and the director of the psychiatric emergency room at the VA Connecticut. Dr. Fuehrlein has a strong interest in medical student and resident education, particularly surrounding addiction psychiatry and serves on multiple local and national committees in this role. In 2017 he was awarded the Irma Bland award for excellency in psychiatry resident education through the APA. In 2018 he was awarded the Clerkship Faculty Teaching Award for Outstanding Medical Student Educator and Role Model. He is also passionate about emergency psychiatry and substance use disorders and has presented and published his work surrounding opioid use disorder in the emergency room setting. In 2019 he was inducted into the American College of Psychiatrists, an organization that recognizes excellence in clinical practice, research, academic leadership, or teaching.

You may contact Dr. Fuehrlein with your comments or questions at [brian.fuehrlein@yale.edu](mailto:brian.fuehrlein@yale.edu).

# Origins of the Opioid Epidemic

## Brian Fuehrlein, MD, PhD

### National Headlines Sept 2021

- "Opioid overdose death rate increases 40% among black individuals" –Healio
- "Opioid overdose deaths jump in 2020" –Tennessee Lookout
- "Opioid overdose deaths in NC increase during COVID-19 lockdowns" –Blue Ridge Public Radio
- "Risk of opioid overdose appears higher in older Americans" –USC News
- "Fentanyl overdoses continue to increase in Tampa Bay" –Bay News 9
- "Drug overdose deaths in 2020 were horrifying" –Scientific American
- "Opioid overdoses in the Yukon on the rise: coroner" –APT News

### National Headlines May 2025

- "Naloxone vending machines installed in Denver" –9News
- "Congress can decrease opioid deaths, but it will require more investment" –The Hill
- "Drug overdose deaths are in a free fall, for now" –vox.com
- "US drug overdose deaths saw an unprecedented drop in 2024, but federal cuts threaten momentum" –CNN
- "Overdose deaths drop to lowest level since before the pandemic" –Axios
- "Research spotlight: Regional disparities in opioid overdose mortality persist despite national decline" –Mass General Brigham
- "Opioid overdose deaths drop in Missouri, but rural areas fight stigmas, barriers to care" –thebeaconnews.org



"If you're over 50 and you wake up in the morning without pain, you might not be alive anymore."  
- Anonymous

JOUR. A. M. A.  
JAN. 18, 1941

The use of narcotics in the terminal cancer is to be condemned if it can possibly be avoided. Morphine and terminal cancer are in no way synonymous. Morphine usage is an unpleasant experience to the majority of human subjects because of undesirable side effects.<sup>5</sup> Dominant in the list of these unfortunate effects is addiction.

### ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

*To the Editor:* Recently, we examined our current files to determine the incidence of narcotic addiction in 39,946 hospitalized medical patients<sup>1</sup> who were monitored consecutively. Although there were 11,882 patients who received at least one narcotic preparation, there were only four cases of reasonably well documented addiction in patients who had no history of addiction. The addiction was considered major in only one instance. The drugs implicated were meperidine in two patients,<sup>2</sup> Percodan in one, and hydromorphone in one. We conclude that despite widespread use of narcotic drugs in hospitals, the development of addiction is rare in medical patients with no history of addiction.

JANE PORTER  
HERSHEL JICK, M.D.  
Boston Collaborative Drug Surveillance Program  
Waltham, MA 02154 Boston University Medical Center

1. Jick H, Mietinen OS, Shapiro S, Lewis GP, Siskind Y, Slone D. Comprehensive drug surveillance. JAMA. 1970; 213:1455-60.
2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

Pain, 25 (1986) 171-186  
Elsevier

PA1 00878

171

### Chronic Use of Opioid Analgesics in Non-Malignant Pain: Report of 38 Cases

Russell K. Portenoy and Kathleen M. Foley

Pain Service, Department of Neurology, Memorial Sloan-Kettering Cancer Center, and Department of Neurology, Cornell University Medical College, New York, NY 10021 (U.S.A.)

(Received 10 June 1985, accepted 28 October 1985)

"We conclude that opioid maintenance therapy can be a safe, salutary and more humane alternative to the options of surgery or no treatment in those patients with intractable non-malignant pain and no history of drug abuse."

SCIENTIFIC  
AMERICAN

February 1990 Volume 262 Number 2

## The Tragedy of Needless Pain

*Contrary to popular belief, the author says, morphine taken solely to control pain is not addictive. Yet patients worldwide continue to be undertreated and to suffer unnecessary agony*

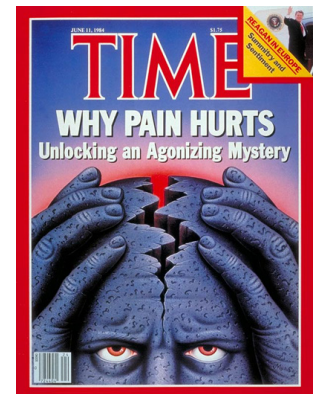
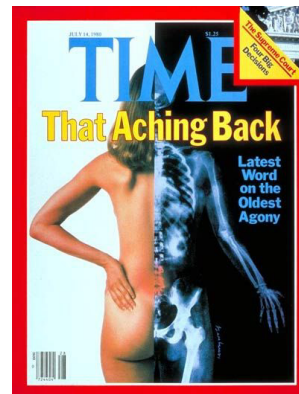
by Ronald Melzack

- Pain was a common pop culture topic of the 1980s and 1990s
- This article clearly states that morphine taken for pain is not addictive



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Time Magazine. *That Aching Back: The Latest Word on the Oldest Agony*. Cover image.  
Time Magazine. *Why Pain Hurts: Unlocking an Agonizing Mystery*. Cover image.



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McCaffery, M. & Beebe, A. (1989). Pain: Clinical manual for nursing practice. St. Louis: C.V. Mosby.



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Vital Signs										
1st	Body temperature									
2nd	Pulse									
3rd	Respiratory rate									
4th	Blood pressure									
5th	1	2	3	4	5	6	7	8	9	10
	No pain	Discomfort	Distressing	Intense	Horrible	Unbearable				



### Reflection Question:

Has the "pain as the fifth vital sign" impacted your prescribing practices?

American Pain Society Quality of Care Committee: Quality improvement guidelines for the treatment of acute pain and cancer pain. JAMA. 1995; 274(23):1874-80



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Purdue Pharma was aggressively marketing OxyContin, particularly to marginalized and rural groups with celebrity endorsements and free items for prescribers and patients.



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- *I Got My Life Back* featured the story of patients on OxyContin and a pain specialist discussing its virtues
- Fifteen years after the documentary 2 of the patients were deceased with OUD likely contributing, one developed an OUD but was sober and the other three were alive and well



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Source: *I Got My Life Back* Documentary, Purdue Pharma.

# ADDICTION RARE IN PATIENTS TREATED WITH NARCOTICS

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2. Miller RR, Jick H. Clinical effects of meperidine in hospitalized medical patients. J Clin Pharmacol. 1978; 18:180-8.

Porter, J and Jick, H. Addiction rare in patients treated with narcotics. New England Journal of Medicine. 1980, 302:123

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## Jick Paper

- "I'm essentially mortified that that letter to the editor was used as an excuse to do what these drug companies did," Jick told the Associated Press in an interview on Wednesday. "They used this letter to spread the word that these drugs were not very addictive."
- Jick said the letter only referred to people getting opioids in the hospital for a short period and has no bearing on long-term outpatient use and testified as a government witness in a lawsuit years ago over the marketing of pain drugs.
- The new editor's note in the journal says: "For reasons of public health, readers should be aware that this letter has been 'heavily and uncritically cited' as evidence that addiction is rare with opioid therapy."

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## OxyContin sales put Purdue's Sackler family on Forbes rich list

by Carly Helfand | Jul 6, 2015 11:32am



The Busches, the Mellons, the Rockefellers—they're some of America's richest families. But one blockbuster pain drug has put a family of pharma-founders ahead of them all in the wealth department.

According to *Forbes*, the Sacklers—who in 1952 bought a small New York drug manufacturer that would eventually become Purdue Pharma—are worth a "conservative" \$14 billion, ranking their fortune at No. 16 on the list of America's largest. And it's all because of OxyContin.

Since arriving on the scene back in 1995, the time-released, supposedly addiction-proof version of the high-strength, high-controversy painkiller has racked up sales estimated at more than \$35 billion, *Forbes* notes. And today, the company's revenues still check in at about \$3 billion a year, driven mostly by that product. Separate companies that sell to Asia, Latin America, Canada and Europe bring in a similar haul to Purdue's for the Sacklers.

But Purdue didn't start out as a pain med company. Brothers Arthur, Mortimer and Raymond Sackler initially sold products like band-aids and camera lenses, while Arthur, a medical education star,

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Source: Carly Helfand, OxyContin Sales Put Purdue's Sackler Family on Forbes Rich List. *Fierce Pharma*.

## Purdue settles OxyContin charge for \$600M

Drugmaker in plea agreement with Justice Department over charges of misleading and defrauding doctors and consumers.

May 10 2007: 1:48 PM EDT

NEW YORK (CNNMoney.com) -- The maker of OxyContin, Purdue Pharma LP, agreed Thursday to a \$600 million penalty as part of a plea deal with the Justice Department on a felony charge of misleading and defrauding physicians and consumers, the government said.

Three of the company's executives, including its CEO, general counsel and former chief medical officer, have separately agreed to pay \$34.5 million in penalties. The company and the three men appeared in federal court Thursday to plead guilty.

The company also agreed to subject itself to independent monitoring and a remedial action program.

"Purdue ... acknowledged that it illegally marketed and promoted OxyContin by falsely claiming that OxyContin was less addictive, less subject to abuse and diversion, and less likely to cause withdrawal symptoms than other pain medications - all in an effort to maximize its profits," said U.S. Attorney John Brownlee.

**OxyContin maker to pay \$19.5M settlement**

"With its OxyContin, Purdue unleashed a highly abusable, addictive and potentially dangerous drug on an unsuspecting and unknowing public. For these misrepresentations and crimes, Purdue and its executives have been brought to justice," he added.

Purdue Pharma is privately owned. ■

FDA to consider depression-fighting machine

Abuse-resistant OxyContin faces hurdles

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Source: CNNMoney, Purdue Settles OxyContin Charge for \$600M in Plea Agreement with DOJ.

A federal bankruptcy judge gave conditional approval Wednesday to a sweeping settlement that will remove the Sackler family from ownership of OxyContin maker Purdue Pharma and devote potentially \$10 billion to fighting the opioid crisis that has killed a half-million Americans over the past two decades.

If it withstands appeals, the deal will resolve a mountain of 3,000 lawsuits from state and local governments, Native American tribes, unions and others that accuse the company of helping to spark the overdose epidemic by aggressively marketing the prescription painkiller.

Under the settlement, the Sacklers will have to get out of the opioid business altogether and contribute \$4.5 billion. But they will be shielded from any future lawsuits over opioids.

The drugmaker itself will be reorganized into a new charity-oriented company with a board appointed by public officials and will funnel its profits into government-led efforts to prevent and treat addiction.

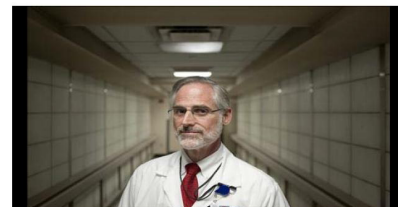
PCSS Providers Clinical Support System 18

AP News, September 1, 2021

U.S. NEWS | Updated December 14, 2012, 10:11 p.m. ET

## A Pain-Drug Champion Has Second Thoughts

By THOMAS CATAN and EVAN PEREZ



More than 16,000 people die from opioid overdoses every year. Now, Dr. Russell Portenoy, who campaigned for prescription of pain medications like Vicodin, Oxycontin and Percocet, is having second thoughts. WSJ's Thomas Catan reports. Photo: Bryan Thomas

"Did I teach about pain management, specifically about opioid therapy, in a way that reflects misinformation? Well, against the standards of 2012, I guess I did. We didn't know then what we know now."

"I gave innumerable lectures in the late 1980s and 90s about addiction that weren't true."

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Source: Thomas Catan & Evan Perez, A Pain Drug Champion Has Second Thoughts, U.S. News.

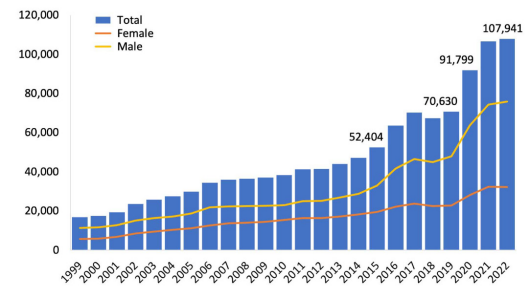


## Summary

- Many factors contributed to the current opioid epidemic
  - Marketing
  - Pain as the fifth vital sign
  - Emphasis on treatment of pain
  - Literature that opioids are safe

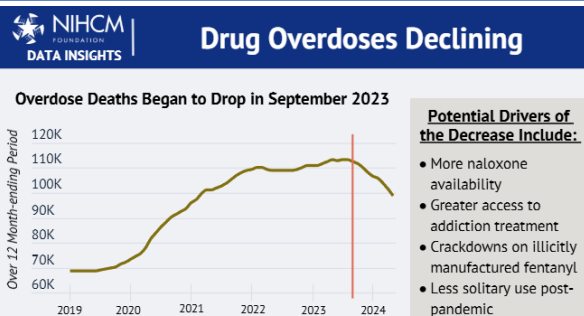
## Currently

Figure 1. U.S. Overdose Deaths\* by Sex, 1999-2022



\*Includes deaths with underlying causes of unintentional drug poisoning (X40-X44), suicide drug poisoning (X60-X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10-Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2022 on CDC WONDER Online Database, released 4/2024.

## Currently



Sources: Ahmad FB, Cisewski JA, Rossen LM, Sutton P. National Center for Health Statistics. Provisional drug overdose death counts. (October 2024). ; Ovalle D. The Washington Post. Overdose deaths decline sharply after years of fentanyl-fueled surges. (October 2024).

## Common Scenario

- A patient presents to the emergency room with an ankle injury and has a fracture.
- Orthopedics places a cast, provides a 2-week follow-up appointment, and prescribes a two-week supply of prescription opioids for pain.
- Does this seem like an appropriate course of action?



## Risk/Benefit Analysis

- | Short-term risks:  | Longer-term risks:  | Benefits:  |
|--|---|--|
| <ul style="list-style-type: none"> <li>Side effects: sedation, constipation, etc.</li> <li>Medication interactions</li> <li>Employment concerns</li> </ul> | <ul style="list-style-type: none"> <li>Prior history of substance use disorder</li> <li>Family history of substance use</li> <li>History of childhood abuse</li> <li>History of mental illness</li> <li>Personal factors, i.e., peer pressure, work stress, the recent loss of a loved one</li> </ul> | <ul style="list-style-type: none"> <li>Pain relief</li> <li>Prior medication trials</li> </ul> |

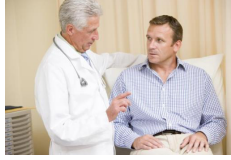
## Patient Education

- Always weigh the risks and benefits of opioid use for all patients before initiation
- Always educate all patients about the risk of developing an SUD
- Those with risk factors need assertive education, lower doses, and frequent follow-ups
- Avoid unnecessary exposure to opioids, but avoid refusing opioids based on the presence of risk factors when the patient is in pain



## Now What?

- The patient returns after two weeks.
- The cast is removed and the fractures appear to have healed.
- The patient reports continued severe pain.
- Patient is requesting more pain medication saying it was the only thing that helped.



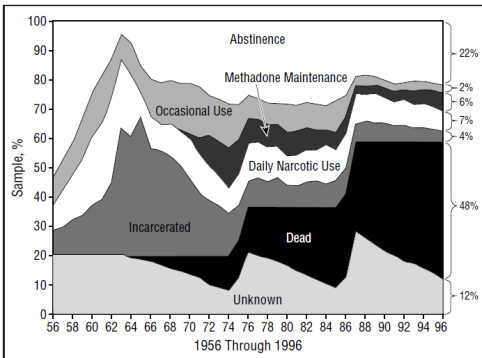
## Red Flags for Opioid Use Disorder



- **Behaviors**
  - Angry/hostile/threatening
  - Preoccupied with specific medication and dose, unwilling to try alternatives or allergic to all others
  - Reports subjective euphoria with opioids
- **Objective findings**
  - Ran out of prescription early
  - Has visited other doctors/ERs
  - Pain out of proportion to exam findings
- **Assessments**
  - Screening tools are effective for assessing and monitoring opioid use disorder objectively but do not confirm an opioid use disorder.

**Note that it is a combination of these that is concerning.**

## Prognosis



## Other Talks

- Other talks will discuss treatment for OUD as well as overdose prevention strategies.

## SELF EVALUATION

### Origins of the Opioid Epidemic

1. Which of the following contributed to the development of the opioid epidemic?
  - a. Aggressive marketing of opioid medications
  - b. Pain as the fifth vital sign
  - c. Normalization of pain treatment in the lay media
  - d. All of the above
2. T/F - Opioid overdoses began to drop in 2023.
3. Which of the following is not a risk when prescribing opioids?
  - a. Development of a substance use disorder
  - b. Side effects
  - c. Interaction with other medications
  - d. Development of autoimmune diseases
4. Which of the following is a red flag for the development of a substance use disorder?
  - a. Calm and cooperative demeanor
  - b. Denial of all pain symptoms
  - c. Preoccupied with specific doses or specific medications
  - d. Normal physical exam
5. According to the study by Hser, what was the approximate death rate for subjects with an OUD at the 30 year mark?
  - a. 10%
  - b. 50%
  - c. 75%
  - d. 95%

**Answer Key:** 1. D, 2. T, 3. D, 4. C, 5. B



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# FACULTY

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## **Rachel D. Godsil, JD**

Rachel Godsil, JD, of Newark, New Jersey, is Co-Founder and Senior Research Advisor to Perception Institute and a Distinguished Professor of Law and Chancellor's Scholar at Rutgers Law School. She collaborates with social scientists on empirical research to identify the efficacy of interventions to address implicit bias, racial anxiety, and stereotype threat. She regularly leads workshops and presentations addressing the role of bias and anxiety associated with race, ethnicity, religion, and gender, focusing on education, criminal justice, health care, and the workplace.

Rachel is on the advisory boards for Research, Integration, Strategies, and Evaluation (RISE) for Boys and Men of Color at the University of Pennsylvania's Center for the Study of Race and Equity in Education, The Systemic Justice Project at Harvard Law School, and the Poverty and Race Research Action Council. Her teaching and research interests include civil rights, constitutional law, property, land use, environmental justice, and education.

You may contact Ms. Godsil with your questions or comments at [rachel@perception.org](mailto:rachel@perception.org).

# Addressing Implicit Bias to Improve Patient Equity

## Rachel D. Godsil, JD

### Excellence in Health Care: Treating Patients with Equal Concern and Respect Overriding Implicit Bias

Rachel Godsil  
Rutgers Law School  
Perception Institute

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### About Perception Institute

Turning research into remedies



Founding Team

Health Work



john a. powell



Alexis McGill  
Johnson



Rachel Godsil



Afua Addo, MHC

The goal: to treat all patients with equal concern and respect.

What is the challenge?

What gets in the way?

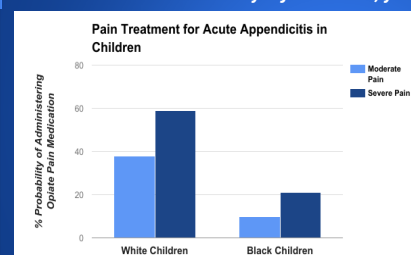
Institutional  
Systemic  
Policies and practices

Categories  
Social Assignments

**Interpersonal**  
Speech and behavior  
• Implicit bias  
• Identity Anxiety  
• Stereotype Threat

### The Paradox

*We consciously reject racism, yet disparities exist*



Field study of 940,000 children treated in the ER for acute appendicitis, 2003-2010.

#### Finding:

In multivariate analyses, white children were 3x more likely to be treated with opiate pain medication than black children, for the same level of pain.

covariates: ethnicity (Hispanic/non-Hispanic), age, sex, insurance status, triage level, and pain score

## Understanding our Unconscious Brains

## Stroop Task

Blue	Red	Green	Black
Green	Red	Blue	Black
Black	Blue	Green	Red
Green	Green	Black	Blue

Stroop (1935)

## Stroop Task

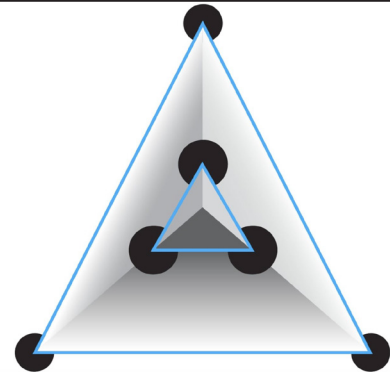
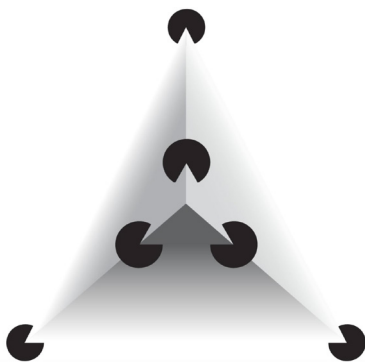
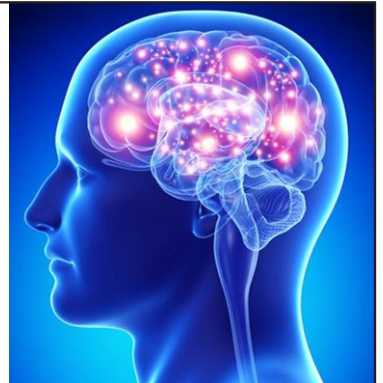
Blue	Red	Green	Black
Green	Red	Blue	Black
Black	Blue	Green	Red
Green	Green	Black	Blue

Stroop (1935)

## Unconscious vs. Conscious Brain

The brain takes in  
**11,000,000** bits of  
information per second, but  
can only process **40** bits  
consciously

Wilson, T. D. (2004). *Strangers to ourselves*.  
Harvard University Press.



## Schemas

Our unconscious brain maintains both "facts" and emotions about people that can undermine our objectivity.

### Schemas

The mental structures we use to organize information around us.

Our brains use schemas to make judgments efficiently and quickly.

### Stereotypes

The traits and characteristics that society associates with a group of people.

### Attitudes

How we feel about a group of people.

## Stereotypes and attitudes are associated with:



## Implicit Bias



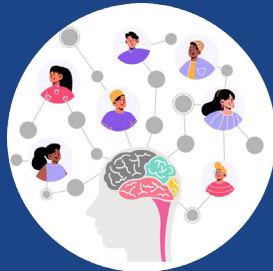
### What is a Bias?

a preference for  
OR  
an aversion against  
a person or group of people



### Explicit Bias

The attitudes and beliefs we have about a person or group on a conscious level.



### Implicit Bias

The brain's automatic, instant association of stereotypes or attitudes toward particular groups, often without our conscious awareness



### Common Targets

- Most implicit bias arises from external characteristics
  - Bias based on perceived race or ethnicity
  - Gender bias
- Arabs and Muslims (**bias is often explicit as well**)
  - Prejudice and discrimination increased in U.S. after September 11, 2001
- People who are overweight
- People with disabilities (visible and non-visible)
- LGBTQ communities
- Undocumented individuals (**bias is often explicit as well**)



### In-Group Preference

If we are in a dominant identity group, preference for our "in-group" can have the same impact as hostility toward the "out-group."

Bell & Nihomo (2001); Dalal (2013)  
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### Attribution Error

We attribute negative in-group behavior to external factors and negative out-group behavior to personal factors.

*"Maybe she hit traffic or is having trouble parking?"*

vs.

*"She really struggles with time management."*

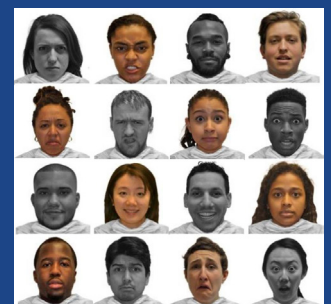


Bell & Nihomo (2001); Dalal (2013)  
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### What Faces Do We See?

- Risks: Misreading facial cues.

- Why? See far more faces of our own group in a wide range of circumstances.



## What about bias in interactions?

*"Sometimes the doctor will see you walking in and as soon as they see who you are, their head goes down. Like you have to say, 'Excuse me' [to get their attention]."*

- Black woman

Gonzalez et al. (2018, p. 1672)

## Navigating patient bias

- A patient refuses a physician's care based on their gender, racial or ethnic background.
- Patients or patients families question a physician's competence

Asman et al. (2023)

## Gender Bias & Pain

- Women's pain is more likely to be interpreted as psychological, not somatic.
- Gendered norms and expectations may influence a provider's recommendations (e.g. not recommending increased physical activity for women due to presuming her priority is spending time with her family.)



Samulowitz et al. (2018)

## Bias in Diagnosis

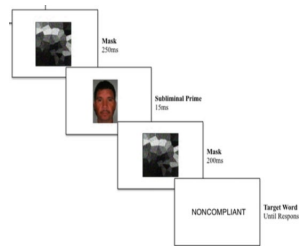
Reading about a young mother with lower abdominal pain, providers at Johns Hopkins were more likely to diagnose the Black mother with pelvic inflammatory disease (PID) and the white mother with appendicitis.



Haider et al. (2015)

## Implicit Stereotypes about Patients

- Providers implicitly perceive Black patients to be less cooperative than white patients.
- Providers hold implicit stereotypes of Black and Hispanic patients as less compliant with medical treatment.
- Providers implicitly associate diseases with specific racial and ethnic groups (e.g. HIV and Black people).



Green et al. (2007); Sabin et al. (2008); Oliver et al. (2014); Cooper et al. (2012); Bean, Stone, Badger, Focella, and Moskowitz (2013); Moskowitz, Stone, & Childs (2012)

## Bias shows up in verbal & nonverbal cues

- Providers speak more and at a faster pace, have shorter visits, and are less patient-centered with Black patients than with white patients.
- In end-of-life care, providers gave fewer positive, rapport-building nonverbal cues when interacting with Black patients than white patients, despite having consistent verbal communication across all patients
  - less time with open body language
  - less time interacting with the patient
  - maintained further distance from the patient



Cooper et al., (2012); Penner et al. (2014); Hagiwara et al. (2013); Elliot et al. (2016); Shen et al. (2018)

## How do we know what biases we may have?

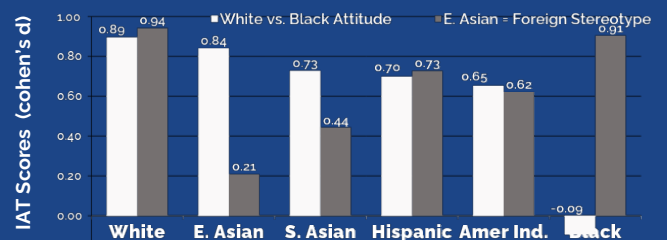
- In order to manage bias in your work, it needs to be revealed
- Simply completing the Implicit Association Tests with feedback on your score is a significant predictor of reductions in bias for providers
- It's important to recognize that bias is not possible to get rid of altogether



Suhera et al., 2018; van Ryn et al., 2015

implicit.harvard.edu

## We Are All Affected



Project Implicit Data 2007-15; I. Ratliff et al. 2020



## Weight Bias

### Explicit Bias

- fearful of gaining weight
- dislike of people overweight
- more negative than based on race, ethnicity or socioeconomic status

### Implicit Bias

- less time with patients
- limited health education
- blame patients for weight
- fewer cancer screenings
- less escalation of diabetes treatment

## Health Care Training Increases Implicit Racial Bias

1st Year Medical Student



4th Year Medical Student



### Why

Frequent exposure and internalization of comments from resident and attending physicians.

Sabin, 2022

## Implicit bias is ...

### Increased by

- ✓ stress
- ✓ time pressure
- ✓ multi-tasking
- ✓ lack of clear criteria for decision-making
- ✓ ambiguous or incomplete information
- ✓ lack of familiarity with group

### Not reduced by

- ✗ good intentions
- ✗ someone else telling you to reduce your bias
- ✗ suppressing bias
- ✗ avoiding people from other groups
- ✗ thinking you don't have bias

## Summary: Implicit Bias & Decision-Making

- Studies about relationship between implicit bias and diagnosis have been shown mixed results depending on methodology and source bias.
- This research is critical and continuing to evolve.



see Penner et al. (2014); Matthew (2015); Penner et al. (2017); Fitzgerald & Hurst (2017); Hall et al. (2015)

## Implicit Bias Interventions

## Bias Override: Align Behavior with Values

B  
R  
E  
A  
K

Protocol

Pause

Listen

## Culture Shifts

- Role modeling
- Active-bystander training
- Rraining to eliminate negative patient descriptions and stigmatizing words



## Strategies for Interrupting Bias

Echo

Question

Educate

Intervene

Pivot / Redirect

Circle Back & Check In

## Bias Reduction

- **Mindfulness**

- 2023 meta-analysis found that mindfulness interventions had "a very large effect on behaviors, a large effect on affect and explicit attitudes, and a medium-sized effect on implicit attitudes."

Chang, D. F., Donald, J., Whitney, J., Miao, I. Y., & Sahdra, B. (2023)



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Thank you!



## SELF EVALUATION

### Addressing Implicit Bias to Improve Patient Equity

1. What is implicit bias?
  - a. A deliberate belief system formed through personal experience
  - b. A conscious preference for one group over another
  - c. An automatic association of stereotypes or attitudes without conscious awareness
  - d. A logical conclusion based on statistical data
2. Which groups are NOT commonly affected by implicit bias in healthcare?
  - a. Arab and Muslims
  - b. Male athletes
  - c. Patients who are overweight
  - d. Differently abled
3. In medical settings, implicit bias can impact which of the following:
  - a. Pain assessment
  - b. Patient experience
  - c. Verbal and non-verbal communication
  - d. All of the above
4. Why might implicit bias increase during medical school?
  - a. Because students focus only on textbooks
  - b. Due to lack of exposure to diverse patients
  - c. Because of repeated exposure to and internalization of biased comments from physicians
  - d. Because students are too young to recognize bias
5. How can healthcare providers begin to override implicit biases?
  - a. By working fewer hours
  - b. By ignoring their emotions
  - c. By pausing, adhering to protocols, and actively listening to patients
  - d. By avoiding interaction with patients they may be biased against

**Answer Key:** 1. C, 2. B, 3. D, 4. C, 5. C



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# FACULTY

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## **Adam D. Marks, MD, MPH, FAAHPM**

Adam Marks, MD, MPH, FAAHPM, of Ann Arbor, Michigan, is a Clinical Associate Professor of Medicine in the Division of Geriatric and Palliative Medicine at the University of Michigan in Ann Arbor, MI. He obtained his MD and MPH at the University of Wisconsin before coming to the University of Michigan, where he completed a combined Internal Medicine/Pediatrics Residency followed by a fellowship in Hospice and Palliative Medicine. In addition to working with both the adult and pediatric inpatient palliative care consult services at Michigan Medicine, he serves as Section Head of Adult Palliative Medicine. He also is a hospice physician for Elara Hospice, and since 2016 has served as a Faculty Ethicist within the Clinical Ethics Service. His clinical interests include symptom management at the end of life; clinical ethics; and effective communication around goals of care and advance care planning.

You may contact Dr. Marks with your questions or comments at [adamarks@umich.edu](mailto:adamarks@umich.edu).

# Ethical Decision-Making at the End of Life: Principles and Practical Challenges

Adam Marks, MD, MPH, FAAHPM

## Outline

- ▶ Review the main principles that traditionally define medical ethics
- ▶ Discuss a case-based approach to common issues that arise at the end of life

## Ethics: A Definition

- ▶ Ethics is not
  - ▶ The same as feeling
  - ▶ Is not religion
  - ▶ Is not following the law
  - ▶ Is not science
- ▶ Ethics is
  - ▶ Moral principles
  - ▶ About what is right and wrong
  - ▶ Based on a value system
  - ▶ Not universal- depends on culture and society

## Ethics: A Definition

- ▶ Ethics refers to standards of behavior that tell us how human beings ought to interact with on another, as friends, parents, children, citizens, professionals, etc.
- ▶ Medical ethics may be traced to guidelines on the duty of clinicians, such as the Hippocratic Oath



## Core Principles of Medical Ethics

- ▶ Autonomy
- ▶ Beneficence
- ▶ Nonmaleficence
- ▶ Justice



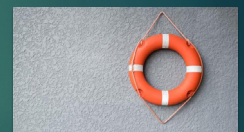
## Autonomy

- ▶ Acknowledges people's right to make choices for themselves based on their own values and beliefs
  - ▶ Informed Consent
  - ▶ Truth-Telling
  - ▶ Surrogate Decision Making



## Beneficence

- ▶ Obligation to contribute positively to a person's welfare.
- ▶ Interventions should provide benefit directly to the patient, focusing on doing things that are of benefit to another.
- ▶ It requires positive steps to help, and not merely avoiding doing harm



## Nonmaleficence

- ▶ Obligation not to inflict harm on others. Harm is to be avoided or minimized.
- ▶ Underlying tenet of medical professional mission statements (First do no harm –Hippocratic Oath)



## Justice

- ▶ Obligation to distribute health care resources in a fair and equitable manner. Requires attention to prioritization and rationing.
- ▶ There is no one just way to allocate resources, and most systems utilize several prioritization model to attempt to achieve a just distribution



## Case #1

- ▶ 48 year old man with severe non-ischemic cardiomyopathy eventually leading to placement of a left-ventricular assist device (LVAD)
  - ▶ Clinically doing very well; minimal symptoms, improved functional status, few reported complicated or side effects
  - ▶ Able to work and participate in the care of his 7yr old daughter
- ▶ Four years after LVAD placement, he presents to his cardiologist's office and requests his LVAD be discontinued and surgically removed
  - ▶ Cites a belief that God has healed him, and that LVAD support is no longer required

## Case #1 (continued)

- ▶ Ethics consult is placed
  - ▶ Review of chart and discussion with patient reveals that shortly after his LVAD was placed, patient was "born again" and became an active member of a Pentecostal Church
    - ▶ Religious tradition includes a belief in divine healing
  - ▶ Patient expresses a belief that by continuing to have the LVAD in place, he is demonstrating a lack of faith that will risk his eternal salvation
- ▶ Cardiologist's office cites all available evidence suggests that patient will most likely die within minutes of discontinuation of his LVAD
  - ▶ Weaned LVAD support in the clinic which caused patient near-syncope
- ▶ "You do not walk into God's arms, you jump"
- ▶ Cardiologist asks: is this euthanasia?

## Time Out: Definitions

- ▶ **Euthanasia** defines a situation where a patient or surrogate decision maker requests a clinician to perform an action that instill pathology with **the intent** of ending that patient's life
- ▶ **Medical Aid-In-Dying** defines a situation where a physician prescribes a lethal dose of medication which the patient can then take for the **express purpose** of ending their life.



## Withholding and withdrawing life-sustaining treatments (LSTs)

- ▶ Many types: hemodialysis, ventilators, etc.
- ▶ Ethics principles: respect for autonomy over beneficence
  - ▶ Rights to refuse, or request the withdrawal of, unwanted interventions even if doing so results in death; should not impose treatments against a competent person's will
  - ▶ No ethical or legal differences between withholding and withdrawing
  - ▶ Clinician's duty: informed refusal

## W/W LSTs

Legal permissibility

Quinlan	1975	WD ventilator
Saikewicz	1977	WH chemotherapy
Dinnerstein	1978	WH CPR
Spring	1980	WD hemodialysis
Barber	1983	WD IV fluids
Bouvia	1985	WH/WD feeding tube
Cruzan	1990	WD feeding tube
Schiavo	2005	WD feeding tube

WD=withdrawal, WH=withhold

## Karen Quinlan

70 N.J. 10 (1976), Supreme Court of New Jersey

- ▶ Found unresponsive; PVS
- ▶ The family wanted to withhold LST; the institution did not
- ▶ Court decision:
  - ▶ Patients have the right to refuse treatment
  - ▶ Surrogates may exercise the patient's right
  - ▶ Such decisions are best made by families, not courts
  - ▶ The state's interest in preserving life can be overridden by the patient's right to refuse treatment



## Elizabeth Bouvia

179 Cal App 3d 1127, 225 Cal Rptr 297, 1986

- ▶ Born with cerebral palsy
- ▶ Quadriplegic and in constant pain
- ▶ At 28, she announced her intent to no longer eat
- ▶ She was competent and understood risks
- ▶ Received a feeding tube against her will
- ▶ Court ordered tube removed; barred replacement without consent
- ▶ **The right to refuse treatment is not limited to terminally-ill patients**

## Nancy Cruzan

- ▶ 1983: in a motor vehicle accident; never regained consciousness (PVS)
- ▶ 1988: parents sought removal of feeding tube
- ▶ Hospital refused without court order
- ▶ Trial court ordered removal of tube



## Nancy Cruzan

US Supreme Court, 1990

- ▶ Competent adults have a constitutional right to refuse unwanted treatments
  - ▶ 14th Amendment "liberty interest"
- ▶ This right extends to incompetent persons through their surrogates
- ▶ Artificially administered hydration and nutrition are medical treatments

## Precedence of landmark cases

Not a right to die, but a right to be left alone

- ▶ A competent patient has the right to refuse or request the withdrawal of LSTs
- ▶ The incompetent patient has the same right (exercised through a surrogate)
- ▶ No difference between withholding and withdrawing LSTs
- ▶ Artificial fluid and nutrition are medical treatments
- ▶ No clinician liability for granting such requests

**Leave  
me alone.  
But don't  
go away.**

## Ethics Case #1 (cont.)

- ▶ Ethics Consult
  - ▶ Recommended spiritual care consult
    - ▶ Clarified patient's goals: "I'd rather die a saved man than live a life of damnation"
    - ▶ Consulted with leaders of the Pentecostal faith, who discussed with the patient and supported his decision
  - ▶ Supported the patient's decision to withdraw life-sustaining treatments if it does not support his goal of care (religious salvation)
  - ▶ Proposed a compromise: would d/c LVAD support and if pt survived, would explant LVAD
  - ▶ Pt later rescinded his request

## Ethics Case #2

- ▶ 58-year-old female with widely metastatic breast cancer, is brought to our emergency room by her family after being told by an outside hospital that no further chemotherapy or radiation therapy options existed for her
  - ▶ In addition to breast cancer, patient also has a small bowel obstruction, worsening kidney function, and is diagnosed with peritonitis
- ▶ Over the next several days, despite aggressive measures to stabilize patient's medical state, patient continues to worsen

## Ethics Case #2 (cont.)

- ▶ Family demands that additional chemotherapy be provided
  - ▶ Cite their cultural values (Russian) which, per family, demand that the patient be allowed "to fight" the cancer until her last day
  - ▶ This belief was supported by the patient, when she was able to speak
- ▶ Medical team states that further chemotherapy would shorten patient's dying process and likely worsen her symptoms (pain, nausea, etc.).
  - ▶ Ethical question: Are they obligated to provide the care requested?

## Futility – What is it?

- ▶ Intervention has no pathophysiological rationale
  - ▶ (e.g. antibiotic for a viral infection)
- ▶ Intervention has already failed
  - ▶ (e.g. CPR ineffective for asystole after 30 minutes)



Lo B. Resolving ethical dilemmas: a guide for clinicians. 3rd ed. Williams and Wilkins. 2005



## Futility – What is it?

- ▶ No worthwhile goals of care can be achieved
  - ▶ (e.g. cardiopulmonary bypass for failed CPR)
- ▶ The likelihood of success is very small
  - ▶ (e.g. less than 1% success – Schneiderman LJ, Jecker NS, Jonsen AR, 1990.)

Lo B. *Resolving ethical dilemmas: a guide for clinicians*. 3rd ed. Williams and Wilkins. 2005



## Futility – What is it?

**Quantitative Futility** – where the likelihood that an intervention will benefit the patient is exceedingly poor

**Qualitative Futility** – where the quality of benefit an intervention will produce is felt to be exceedingly poor



## Concept of "Potentially Inappropriate Treatments" and "Non-Beneficial Treatment"

### An Official ATS/AACN/ACCP/ESICM/SCCM Policy Statement: Responding to Requests for Potentially Inappropriate Treatments in Intensive Care Units

Gabriel T. Bosslet, Thaddeus M. Pope, Gordon D. Rubenfeld, Bernard Lo, Robert D. Tringoli, Cynthia H. Rushton, J. Randall Curtis, Dee W. Ford, Molly Osborne, Cheryl Mialk, David H. Au, Elie Azoulay, Blanche Brody, Brenda G. Falty, Jesse B. Hall, Jozsef Koseoglou, Alexander A. Roth, Kathleen G. Lindell, and Douglas B. White, on behalf of The American Thoracic Society ad hoc Committee on Futility and Potentially Inappropriate Care

The Official Policy Statement of the American Thoracic Society (ATS) was approved by the ATS, January 2015; the American Association for Critical Care Nurses (AACN), December 2014; the American College of Chest Physicians (ACCP), December 2014; the European Society for Intensive Care Medicine (ESICM), September 2014; and the Society of Critical Care Medicine (SCCM), December 2014.

Am J Respir Crit Care Med. 2015 Jun 1;191(11):1318-30

## Futility: Typical Use

- ▶ When no consensus about the goals of care can be reached, especially in very sick ICU patients, the issue of invoking medical futility is often raised.
- ▶ The concept of how to define futility and when to invoke it is controversial.
- ▶ Often a mixed fact and value statement, involving aspects of qualitative and quantitative futility

## Futility – Problems

- ▶ Judgments are often mistaken or problematic
- ▶ Futility (strict definition) applies to few patients
- ▶ Unilateral decisions polarize parties
- ▶ Value judgments may be masked as scientific expertise

Lo B. *Resolving ethical dilemmas: a guide for clinicians*. 3rd ed. Williams and Wilkins. 2005

## Futility: Argument in favor of limiting treatment due to futility

- Medical providers make value judgements all the time
- Autonomy allows you the right to choose between (or opt out of) treatments; does NOT mean you can demand care that is of no help
- Limits use of scarce resources at the end of life

Tomlinson T, Brody H. Futility and the Ethics of Resuscitation. JAMA 1990;264:1276-1280.

## AMA Code of Ethics

- ▶ All health care institutions should adopt a policy on medical futility
- ▶ Due process approach to cases involving ongoing conflicts about continued 'futile' treatment
  - Negotiate disagreements
  - 2nd opinion by consultant if appropriate
  - Ethics consultation
  - Seek transfer of care
  - MD has no obligation to provide futile treatment

AMA Code of Ethics § 2.037

## Futility/Non-Beneficial Treatment - Resolution

- ▶ Most cases where the option of invoking futility/NBT involve significant barriers or breakdown in trust and communication, between the patient/surrogate and the health care team.
- ▶ Resolution can be best achieved by mediation with staff trained in conflict mediation (palliative care, patient relations etc)



## Ethics Case #2 (resolution)

- ▶ Ethics Consult
  - ▶ Supports physicians in not providing care they deem to be potentially inappropriate or futile
  - ▶ Recommended a good-faith effort be made to seek second opinion from other clinicians and other institutions
  - ▶ Recommend reframing the role of chemotherapy
    - ▶ In this case, further chemotherapy would limit the patient's natural ability to "fight" the cancer
  - ▶ Recommended Palliative Care Consult
- ▶ After much discussion and psychosocial support to the family, they expressed understanding and acceptance of the decision to not provide further chemotherapy
  - ▶ Patient expired 36 hours after ethics consult was placed

## Ethics Case #3

- ▶ 67 year old man with widely metastatic lung cancer including brain involvement, which has progressed despite aggressive chemo/radiation therapy, referred to hospice by his oncologist.
  - ▶ Lifelong bachelor, no close friends, estranged from family
  - ▶ Closest relationship is with his medical case manager, whom he has listed as his emergency contact.
- ▶ Enrolled on hospice at home on Tuesday
  - ▶ No advance directive
  - ▶ Expressed a desire to be comfortable at the end of life
  - ▶ No recorded discussion of code status

## Ethics Case #3 (cont)

- ▶ Two days later, a nurse arrived to review patient's symptoms, and the patient is found in bed, confused and unable to ambulate
  - ▶ Patient is transferred to an inpatient hospice unit for management, where he continues to decline and shows clinical evidence of stroke, and appears to be close to death
    - ▶ Patient remains FULL CODE by default
    - ▶ No time to obtain an emergency guardian
  - ▶ Patient's clinical case manager, oncologist and primary care provider are contacted
    - ▶ No family is known
    - ▶ No surrogate defined

## Decision Making Capacity

- ▶ **Decision making capacity** is a medical term:
  - ▶ Implies the capacity to provide *informed consent to treatment*
  - ▶ Determined by a physician or psychologist
  - ▶ Depending on state law, may require more than one physician, or a physician and psychologist, to invoke a state Power of Attorney for Health Care document, so that a designated *Health Care Agent* becomes the legal decision maker.



## 4 Domains of Capacity

### Understanding

- ▶ Does the patient understand their disease state or pathology?
- ▶ Does the patient understand the basics of the proposed treatment or intervention?
- ▶ Patients should describe in their own words.

### Appreciation

- ▶ Does the patient believe they have the disease state or pathology prompting proposed treatment?
- ▶ Does the patient acknowledge potential benefit from the proposed intervention?
- ▶ (If applicable) – Do they appreciate the probability of success/failure?

## 4 Domains of Capacity

### Reasoning

- ▶ Can the patient state risks and benefits of the proposed intervention?
- ▶ Can the patient state alternative options?
- ▶ Can the patient generate logical conclusions based on information provided?

### Expressing a Choice

- ▶ Does the patient express a clear choice whether to proceed with the proposed intervention?
- ▶ Are they consistent in their choice?
- ▶ Does the choice make sense based on the preceding conversation?
- ▶ Is the choice free from coercion?

## Who should participate in shared decision making when a patient is incapacitated?

- ▶ Power of Attorney for Health Care is the preferred document to legally authorize an agent
  - ▶ Agents are legally empowered to make medical decisions
  - ▶ Agents should be familiar with the patient, their values and wishes, and willing to act as a strong patient advocate



## Who should participate in shared decision making when a patient is incapacitated?

- ▶ A surrogate decision-maker, as defined by state surrogacy statutes
  - ▶ Many states have surrogacy laws that define by statute the order by which family members have legal decision-making capacity
- ▶ A court appointed legal guardian



### If there is no legal surrogate...

- ▶ Decisions should be made according to the patient's previously expressed wishes, if known
- ▶ Clinicians should include family members, and/or close friends who know patient's wishes in the decision making discussion
- ▶ If the patient's wishes are unknown, decisions should be made in the patients best interest

### Limitations in Surrogate Decision Making

- ▶ Children: Cannot refuse treatment that if that refusal leads to a clear harm to the child (harm principle, beneficence > autonomy)
  - ▶ Cancer treatments
  - ▶ Blood transfusions
- ▶ Reason to believe they are making decisions against the known wishes of the patient, i.e. they are *not engaging in substitutive judgement*

### Ethics Case #3 (resolution)

- ▶ Oncologist, PCP and clinical nurse manager all describe pt's previously expressed goal of focusing on his comfort at the end of life
- ▶ Based on prior expressed wishes, the hospice physician is made that a FULL CODE status in the setting of a terminal condition is not consistent with pt's stated goals of focusing on comfort at the end of life.
  - ▶ Efforts are made to provide patient with comfort measures as he approaches death
  - ▶ Patient expires within three hours of arrival to the in-patient hospice facility without regaining consciousness

### Conclusion

- ▶ End of life care is an emotional time for all involved, and can be fraught with conflict, ethical or otherwise
- ▶ The general concepts of medical ethics (autonomy, beneficence, non-maleficence) apply
- ▶ Other ethical concepts can guide appropriate care for those at the end of life

## SELF EVALUATION

### Ethical Decision-Making at the End of Life: Principles and Practical Challenges

1. The ethical imperative towards obtaining informed consent, truth-telling, and surrogate decision making primarily stem from which core principle in medical ethics?
  - a. Justice
  - b. Autonomy
  - c. Beneficence
  - d. Nonmaleficence
2. Which of the following is true regarding the determination of medical decision making capacity?
  - a. A formal determination of medical capacity can only be made by a licensed psychiatrist
  - b. Federal law mandates that two licensed health care providers are required to legally declare a patient incompetent
  - c. A person's capacity depends on the complexity of the decision they're being asked to make
  - d. A persons ability (or lack thereof) to communicate a decision does not impact capacity determinations
3. The case of Karen Quinlan is important for establishing what core aspect of medical ethics?
  - a. Artificial hydration and nutrition are medical treatments like anything else and can be stopped at the request of a surrogate
  - b. A person does not need to be terminally ill to request the withdrawal of life sustaining treatments
  - c. Parental autonomy is limited to those decisions that do not result in the harm of a child
  - d. The right to request with the withdrawal of life sustaining treatment may be exercised by surrogates on the behalf of an incapacitated patient
4. The case of Nancy Cruzan is important for establishing what core aspect of medical ethics?
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  - c. Parental autonomy is limited to those decisions that do not result in the harm of a child
  - d. The right to request with the withdrawal of life sustaining treatment may be exercised by surrogates on the behalf of an incapacitated patient
6. Which of the following statements of medical futility are NOT true?
  - a. There tends to be broad consensus about what medical interventions are considered medically futile
  - b. Physiologic futility refers to those interventions that have no pathophysiologic rationale
  - c. Medical providers are typically thought to be able to make determinations of qualitative futility
  - d. Using the concept to medical futility to engage in unilateral decision making typically exacerbates conflict with patients and families.
7. T/F - Parental autonomy in medical decision is limited by those decisions that violate the best interest standard

**Answer Key:** 1. B, 2. C, 3. D, 4. A, 5. B, 6. A, 7. F



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# FACULTY

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## **RJ Gillespie, MD, MHPE, FAAP**

RJ Gillespie, MD, MHPE, FAAP, of Portland, Oregon, is a general pediatrician with The Children's Clinic in Portland. From 2007 through 2010 he worked as the Medical Director of Quality Improvement for the Children's Health Alliance, and from 2010-2016 he was the founding medical director for the Oregon Pediatric Improvement Partnership. He is the co-author of *The Trauma-Informed Pediatric Practice: A Resilience-Based Roadmap to Foster Early Relational Health* from the AAP Press, which received Gold in the 2025 Society for Scholarly Publishing EPIC Awards. He currently conducts clinical research in parental Adverse Childhood Experiences and does training and consultation in screening and referral for trauma in pediatric practices. He has been active in multiple state and national advisory committees, most recently for the American Academy of Pediatrics Addressing Social Health and Early Childhood Wellness (ASHEW) and the Trauma Expert Leadership Team. He attended medical school at Oregon Health Sciences University, graduating in 1997, and completed his residency and chief residency at Rush Children's Hospital in Chicago, Illinois in 2001. He also earned a Master of Health Professions Education from University of Illinois – Chicago in 2007.

You may contact Dr. Gillespie with your questions or comments at [gillespierj@gmail.com](mailto:gillespierj@gmail.com).

# It Doesn't Just Stay in Childhood: The Lifelong Effects of Child Abuse and Adversity

## RJ Gillespie, MD, MHPE, FAAP

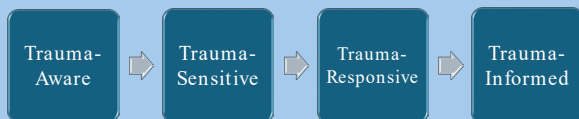
### Objectives

- Review the potential implications of adverse childhood experiences (ACEs) on lifelong health and wellness.
- Understand the basic physiologic mechanisms by which childhood adversity may affect physical and mental health.
- Recognize the effects of relational health – in particular early relational health – on mitigating the effects of childhood adversity.
- Clarify steps that primary care providers – regardless of specialty – can implement in practice to become more trauma-informed.

### What is Trauma-Informed Care?

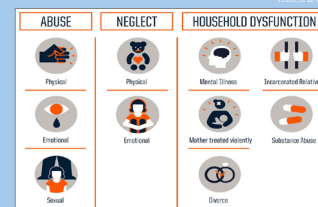
- Trauma-informed care is medical care in which all parties involved assess, recognize, and respond to the effects of traumatic stress on children, caregivers, [adult patients], and health care providers. (National Child Traumatic Stress Network)

### Steps in TIC



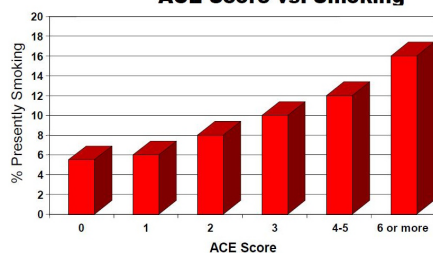
### Adverse Childhood Experiences

"We found a strong graded relationship between the breadth of exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults."

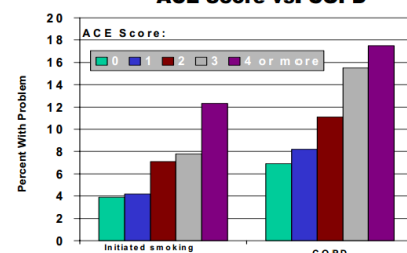


Source: Centers for Disease Control and Prevention  
Credit: Robert Wood Johnson Foundation

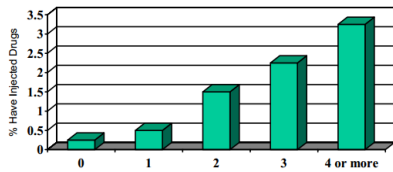
### ACE Score vs. Smoking



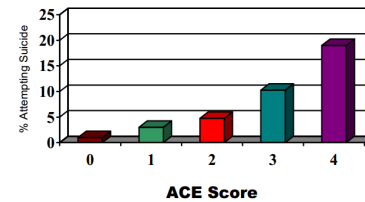
### ACE Score vs. COPD



**ACE Score vs. Intravenous Drug Use**



**ACE Score vs. Attempted Suicide**



### Premature Morbidity & Mortality with ACEs

- Alcoholism and alcohol abuse
- Chronic obstructive pulmonary disease (COPD)
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease (IHD)
- Liver disease
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases (STDs)
- Smoking
- Suicide attempts
- Unintended pregnancies
- Early initiation of smoking
- Early initiation of sexual activity
- Adolescent pregnancy
- Autoimmune diseases
- ER Visits
- Medical Office Visits
- Fractures
- Psychotropic Medications Prescribed
- Early Death from MI

### Cumulative Burden of Recurrent or Persistent Exposure to Trauma

- Changes in gene expression
- Alterations in brain architecture
- Endocrine and immune imbalance
- Decreased executive function and affect regulation
- Interference with relational health

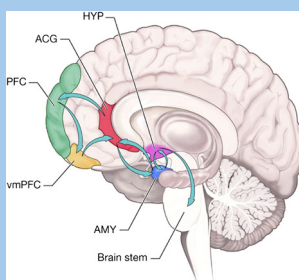
### Epigenetics



### Dutch Hunger Winter, 1944-45

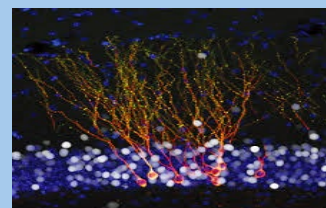


### Alterations in Brain Architecture

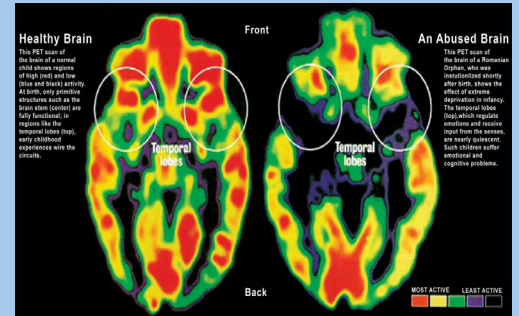
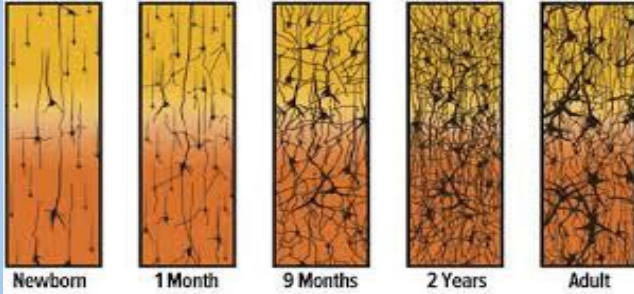


### In The First Three Years of Life

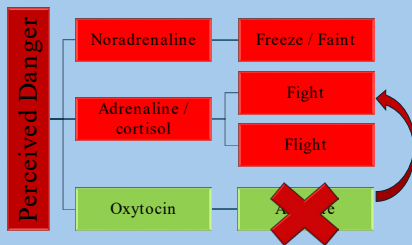
More than one million neural connections are made every second.



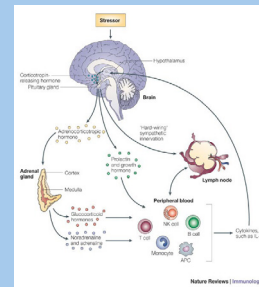
## Neuron growth and organization



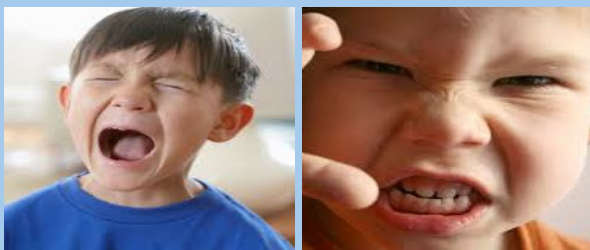
## Physiology of Stress: Potential Pathways



## Endocrine and Immune Imbalance



## What We See Is Behavior



## What We See Is Behavior



## What We See Is Behavior



## What We See Is Behavior





"It's hard to get enough of something that almost works."

- V. Felitti

## Attachment: Foundations of Relational Health

- John Bowlby – 1907-1990
- Emotional bonds are basic for survival.
- Care seeking and care giving are complementary.
- Current conceptualization refers to "safe, stable, nurturing relationships" (SSNRs) as foundational to SE health.



John Bowlby by Unknown Author is licensed under CC-BY-NC-ND

## Attunement – "catching your baby's vibe"

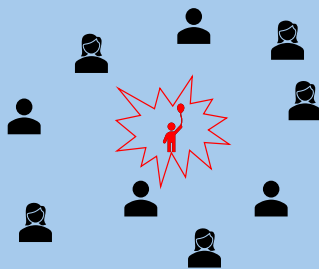


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## Scaffolding of Relationship Skills



## Social Thinning & Stress Generation



## Beyond ACEs...Stress and Toxic Stress

- **Normal stress:** Everyday pressure that pushes us to perform. Usually temporary and has an activating effect.
- **Tolerable stress:** Negative events (usually temporary or one-time) that are well-buffered by coping strategies and support of those around us.
- **Toxic stress:** Chronic, repeated stresses – often committed by those who are supposed to support us – and which overwhelm our capacity for coping.



## The Power of Positive Childhood Experiences

- Adults with more PCEs have fewer mental health problems and better social systems.
- Adults reporting more PCEs showed 72 percent lower levels of adult depression and/or poor mental health and were 3.5 times more likely to get the social and emotional support they need as an adult (Bethell, et al., 2019).
- More PCEs also associated in adulthood with better diet, fewer sleep problems, less substance use and less high-risk sexual behavior (Crandall et al., 2019 & 2020)
- "When ACEs scores are moderate, counter-ACEs largely neutralize the negative effects of ACEs on adult health. Ultimately, the results demonstrate that a public health approach to promoting positive childhood experiences may promote better lifelong health."



## Balancing ACEs: Asking About PCEs

- Before the age of 18, I...
  - Was able to talk with the family about my feelings
  - Felt that my family stood by me during difficult times
  - Enjoyed participating in community traditions
  - Felt a sense of belonging in high school
  - Felt supported by friends
  - Had at least two non-parent adults who took a genuine interest in me
  - Felt safe and protected by an adult in my home

From Bethell C, et al (2019). JAMA Pediatrics 173(11), e193007

## Benevolent Childhood Experiences

- Did you have at least one caregiver with whom you felt safe?
- Did you have at least one good friend?
- Did you have beliefs that gave you comfort?
- Did you like school?
- Did you have at least one teacher who cared about you?
- Did you have good neighbors?
- Was there an adult (not a parent/caregiver or the person from #1) who could provide you with support or advice?
- Did you have opportunities to have a good time?
- Did you like yourself or feel comfortable with yourself?
- Did you have a predictable home routine, like regular meals and a regular bedtime?

Narayan, A. J., Rivera, L. M., Bernstein, R. E., Harris, W. W., & Lieberman, A. F. (2018). Child Abuse and Neglect, 78, 19-30. doi: 10.1016/j.chiabu.2017.09.022

## Healing is possible...

- While trauma can affect genetic expression, brain structure, and brain function,
  - Healing and building resilience can reverse those changes.
- Relational health is the primary mechanism!



## Going back to the beginning...



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## What interferes with relational health?



Caregiver trauma history



Social Drivers of Health



Caregiver depression / anxiety

<https://www.shutterstock.com/image-vector/illustration/260848488>

## Caregiver Trauma History

- A history of caregiver ACEs is associated with:
  - General developmental delays
  - Social-emotional delays
  - Increased risk of behavior problems, including internalizing, externalizing, and attention problems
  - Higher rates of some health problems, including asthma and overall "worse health status"
  - Missing well visits / "no-shows"
  - Poor parenting practices (probably due to modeling)

## Peripartum Mood Disorders

- Studies of Kindergarten Readiness demonstrate that exposure to maternal depression was associated with:
  - Difficulties in social competence (aRR = 1.28; 95% CI: 1.20–1.38),
  - Poor physical health and well-being (aRR = 1.28; 95% CI: 1.20–1.36)
  - And poor emotional maturity (aRR = 1.27; 95% CI: 1.18–1.37).
  - For most developmental domains, exposure to maternal depression before age 1 and between ages 4 and 5 had the strongest association with developmental vulnerability.

(Wall-Weiler, Pediatrics 2020)

## Social Drivers of Health

- A majority (68%) of parents of children under 18 reports experiencing at least one social or lifestyle factor that limits their family's ability to live a healthy life.
  - Insufficient income / employment: 41%
  - Unsafe housing, communities, or exposure to violence: 34%
  - Poor schools and/or low-quality child care: 29%
  - Worried they'd run out of food: 23%
- 32% said they've missed at least one of their child's medical appointments in the last year because they were unable to get to it or pay for it.
- 30% said they don't have time to worry about their child's health unless it's a medical emergency.

(Redefining Health for the Well-Being of Children, Nemours Health, 2019)

## Intimate Partner Violence

- 27% of women aged 15–49 have experienced physical and/or sexual violence from their partners, and
- 13% of women have experienced such events in the past 12 months.
- Potential health and mental health consequences.
- Impairment of postpartum neuroplasticity: frontal cortex and amygdala.
- Recent USPSTF guidelines: screening of women in childbearing years, Grade B.

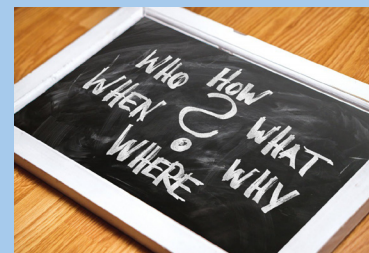
## So what?

- Disruptions in ERH lead to poor developmental and behavioral outcomes for kids.
- Therefore, in order to promote SE health, primary care providers must promote early relational health by assessing barriers to SSNRs experienced by the family.
  - Parents who have experienced ACEs (particularly in the absence of PCEs), may not have experienced appropriate modeling in positive parenting, self care, and an understanding of normal child development.
  - Parents who experience SDoH may be physically and / or emotionally unavailable to build relational health with their children.
  - Parents who experience peripartum depression or anxiety may have challenges observing and responding to infant's cues, and may not have the energy to actively promote their child's development.

“It’s hard to be in relational mode when you’re in survival mode.”

Promoting SSNRs in caregiver-child dyads requires careful support of caregiver health and wellness.

## Now what?



## A word from the expert...

“Asking and listening...was in itself a very profound form of doing.”

“How did these experiences affect you later in life?”

Vince Felitti

## Don't be afraid to ask

- ACE screening is controversial, but asking about a trauma history can be simple and transformational.

Did anything scary or upsetting happen to you  
-in your childhood  
-before these symptoms began  
-that still bothers you now?

## Redefining Our Role & Goal: Understanding the “Righting Reflex”

- “Success” in our conversations about ACEs, trauma or SDoH is relational.
  - Goal is not about “forcing” a disclosure.
  - Is the door open to further conversation?
- Conversation should be validating, safe and non-threatening.
- If we’re leaning on our training to “fix everything” we may not be present to hear the stories.
- People’s behaviors make more sense if you understand their story.
  - Instead of “what’s wrong with this person?”, think “what happened to this person?”, and “how can I help?”

## Validating the Experiences

- When survivors said that they had been listened to with compassion they were 2.9 times more likely to report being mostly or completely healed.
- When survivors believed that people understood the impact of trauma on their lives they were 2.2 times more likely to report being mostly or completely healed.
- When survivors believed that people knew how to help them heal they were 2.3 times more likely to report being mostly or completely healed

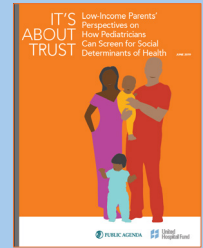
From: Survivor Voices Study, 2009 & 2011, Trauma Healing Project, Eugene, OR

## In Other Words...

- What is most required of you is your listening skills.
- By listening to the patient, and understanding their perspective, and probing for their particular needs, the plan will be obvious.
- When in doubt, ask: “What do you think would be most helpful right now?”
- Think about the most challenging conversation you’ve had clinically.
  - What was your role?
  - What did you offer the patient or family?
  - What made the interaction successful?

## What Parents Fear

- Judgment and discrimination
- Intervention by child protective services
- Lack of time during appointments
- Prospect of disclosing sensitive information without getting help
  - The experience of a “Double Loss” – saying that you need help and then not getting it.



<https://publicagenda.org/resources/its-about-trust-low-income-parents-perspectives-on-how-pediatricians-can-screen-for-social-determinants-of-health/>

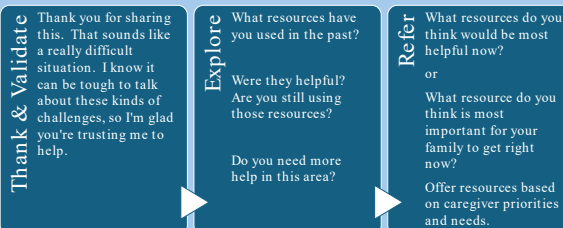
## Reducing Sources of Stress: Screening for SDoH

- Screen only for those conditions for which you have available resources – remember the double loss!
- Consider annual screening for SDoH
  - Health Leads
  - Hunger Vital Sign
  - SWYC, SEEK
  - WECARE, PRAPARE, IHELLP

## Reducing Sources of Stress: Screening for IPV

- Screen only for those conditions for which you have available resources – remember the double loss!
  - Most counties have resource lists for IPV / DV
- IPV screening – paper screens preferred for privacy / confidentiality
  - During pregnancy – once per trimester
  - In the first 6 months postpartum
  - As needed – changes in partners, finances, living situation
  - HARK, HITS, PVS, WAST

## Responding to Disclosures



## In Sum

- The effects of childhood abuse and trauma can last a lifetime,
- AND healing from that trauma is not only possible, it can change a life trajectory,
- WHICH REQUIRES health care providers to:
  - Know the effects of trauma
  - Ask the right questions, and be willing to hear the answers
  - Work to reduce or remove sources of stress for patients and families through screening and referral.

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## SELF EVALUATION

### It Doesn't Just Stay in Childhood: The Lifelong Effects of Child Abuse and Adversity

1. Which of the following is a true statement about the associations of parental trauma and the risks to their children?
  - a. A parent who was physically abused as a child is highly likely to become a perpetrator of physical abuse against their own child.
  - b. A parent with a high ACE score is likely to have a child with a higher ACE score, though the specific ACEs may differ from generation to generation.
  - c. A history of parental trauma has no known impact on the child's eventual ACE score.
  - d. A history of parental trauma is not associated with developmental risk in their children.
  - e. Loss of a parent is not considered a significant adverse childhood experience.
2. During a conversation with a patient about their trauma history, you notice that the patient is upset by being asked the questions. As a provider, you should:
  - a. Immediately refer the patient to a mental health provider.
  - b. Acknowledge the patient's distress, and focus on empathetic listening.
  - c. Stop the conversation immediately.
  - d. Ask the patient if you can help them understand the reason for the questions.
  - e. Both B & D.
3. Which of the following is not considered a complex or toxic traumatic stress?
  - a. Child abuse
  - b. Witnessing domestic violence
  - c. Fear of deportation / immigrant or refugee status
  - d. House fire
  - e. Chronic community violence
4. T/F - Trauma-informed care relies on the principle of understanding "what's wrong with you?"
5. Which of the following is NOT a potential effect of trauma on a patient's physiology?
  - a. Changes in gene expression
  - b. Alterations in brain architecture
  - c. Endocrine and immune strengthening
  - d. Decreased executive function and affect regulation
  - e. Interference with relational health
6. After a trauma, which of the following mechanisms is NOT a potential reason for later social thinning, or loss of social support networks?
  - a. Alterations in threat processing, where people who have experienced trauma see threats where there are none.
  - b. Abnormal reward pathways, where social interactions are less rewarding after a trauma.
  - c. Disrupted autobiographical memory
  - d. Increased ability to regulate emotions during social interactions
  - e. Loss of primary support figures to buffer the effects of trauma

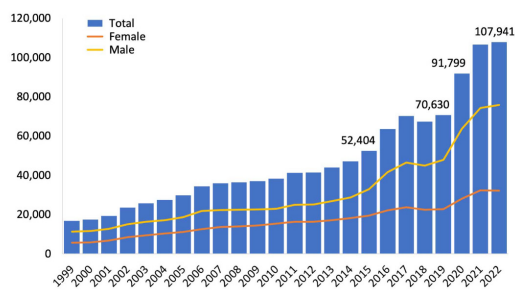
**Answer Key:** 1. B, 2. E, 3. D, 4. F, 5. C, 6. D

## Fentanyl, Overdose Prevention, and Special Considerations

### Brian Fuehrlein, MD, PhD

#### Currently

**Figure 1. U.S. Overdose Deaths\* by Sex, 1999-2022**



\* Includes deaths with underlying causes of unintentional drug poisoning (X40-X44), suicide drug poisoning (X60-X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10-Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2022 on CDC WONDER Online Database, released 4/2024.

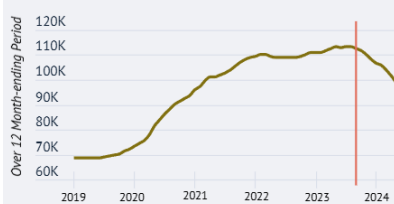
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#### Currently



#### Drug Overdoses Declining

##### Overdose Deaths Began to Drop in September 2023



##### Potential Drivers of the Decrease Include:

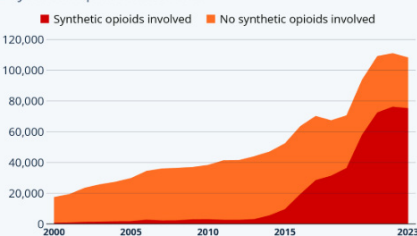
- More naloxone availability
- Greater access to addiction treatment
- Crackdowns on illicitly manufactured fentanyl
- Less solitary use post-pandemic

Sources: Ahmad FB, Cisewski JA, Rossen LM, Sutton P. National Center for Health Statistics. Provisional drug overdose death counts. (October 2024); O'valle D. *The Washington Post*. Overdose deaths decline sharply after years of fentanyl-fueled surges. (October 2024).

#### Currently

#### Fentanyl Fuels Surge in U.S. Drug Overdose Deaths

Estimated number of drug overdose deaths (not) involving synthetic opioids in the U.S.\*



\* Synthetic opioids (e.g. fentanyl) exclude methadone. Figures from 2020 onwards are provisional estimates adjusted for reporting delays. Source: Centers for Disease Control and Prevention

Support 4

## Common Signs of Opioid Intoxication and Withdrawal

#### Intoxication Signs

Drooping eyelids  
Constricted pupils  
Reduced respiratory rate  
Scratching (due to histamine release)  
Head nodding

#### Withdrawal Signs

Restlessness, irritability, anxiety  
Insomnia  
Yawning  
Abdominal cramps, diarrhea, vomiting  
Dilated pupils  
Sweating  
Piloerection



SAMHSA, 2018  
Kampman et al., 2015



Providers  
Clinical Support  
System 5

## Illicitly Manufactured Fentanyl

IMF is an opioid 50 to 100 times more potent than morphine. IMF analogs have varying degrees of potency relative to morphine – some are more potent, and some are less potent.

IMF has a higher lipophilicity than heroin and morphine. Fentanyl >1000 fold more lipophilic than morphine, resulting in rapid penetration into the Central Nervous System (CNS). Rapid penetration into the CNS closes the window (time) on being able to intervene in an overdose. Studies suggest that a heroin overdose may not be lethal for 20-30 minutes, while an IMF overdose can be lethal in less than 5 minutes.



Providers  
Clinical Support  
System 6

Source: Armenian et al., 2018, Skolnick 2021, slide credit Robert Lawlor

## Ramifications of Fentanyl

- "The changing nature of heroin/non pharmaceutical fentanyl (NPFs) necessarily gives rise to new beliefs surrounding self-treatment attempts, treatment seeking behaviors, and harm reduction practices. While buprenorphine treatment continues to offer promising results for treating opioid use disorders, it is urgent to reconsider how the unpredictable biochemical mixture of NPFs circulating on the streets today may impact the initiation and success of treatment."

"Everything is not right anymore": Buprenorphine experiences in an era of illicit fentanyl. *International Journal of Drug Policy*. 74:76-83, 2019



Providers  
Clinical Support  
System 7

## Ramifications of Fentanyl

- “Prescribers and individuals with OUD should be aware of the potential for BUP/NX to unexpectedly precipitate withdrawal in some patients who use fentanyl, despite adherence to traditionally adequate periods of opioid abstinence. As fentanyl continues to adulterate the illicit drug supply in many communities, current induction regimens should be re-examined and adapted accordingly. BUP/NX inductions represent a vulnerable period for patients that use fentanyl; we must ensure that, wherever possible, we do not inadvertently act to turn them away from an effective and potentially life-changing therapy.”

Challenges with buprenorphine inductions in the context of the fentanyl overdose crisis: A case series. *Drug and Alcohol Review*, 41(2):444-448, 2021



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## Ramifications of Fentanyl

- “As a competitive antagonist at  $\mu$ -opioid receptors, naloxone is often a life-saving agent in cases of overdose caused by conventional opioids, but it may not be versatile or powerful enough to combat the rising tide of overdoses due to fentanyl and its illicit analogues, or in cases of overdose involving combinations of opioids and non-opioids.”

Pergolizzi, et al. Overdoses due to fentanyl and its analogues (FIFAs) push naloxone to the limit. *Journal of Clinical Pharmacy and Therapeutics*, 46(6):1501-1504, 2021



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## Ramifications of Fentanyl

- Increase in mentions of precipitated withdrawal was associated with increase in fentanyl
- Microdosing strategies are being recommended to avoid precipitated withdrawal
- People who used fentanyl report precipitated withdrawal following longer periods of abstinence

Anthony Spadaro, Abbed Sarker, Whitney Hogg-Straemer, Jennifer S. Love, Nicole O'Donnell, Lewis S. Nelson & Jeanmarie Perrone (2022) Reddit discussions about buprenorphine associated precipitated withdrawal in the era of fentanyl. *Clinical Toxicology*, 69(6), 694-701, DOI: [10.1080/15563659.2022.2012730](https://doi.org/10.1080/15563659.2022.2012730)



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## Initiation to Buprenorphine in the Patient Using Fentanyl

- Fentanyl – often sold as heroin in the street drug supply is:
  - ✦ a synthetic opioid
  - ✦ with strong affinity to the opioid mu receptor
  - ✦ highly lipophilic
- Initiation to buprenorphine may be problematic due to:
  - ✦ fentanyl competitive binding to the opioid receptor
  - ✦ persistent slow release of fentanyl after repetitive use from adipose cells resulting in difficult stabilization with buprenorphine.
- Some patients having tried buprenorphine on the street and experiencing withdrawal symptoms will present choosing to initiate methadone.



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## Using Alternative Methods in Transitioning Patients from Fentanyl to Buprenorphine “High Dose Initiation”

- There is literature primarily out of emergency medicine using “high dose” buprenorphine in the transition.
  - ✦ Patients presenting in withdrawal, COWS > 13, known to have been using fentanyl, can be given 8 to 16mg on first dose. If withdrawal continues you may increase this 8mg at a time up to 32mg as needed.
    - If given 24 to 32 mg, this may have the additional benefit of holding off withdrawal for greater than 24 hours to get to follow-up care.

Herring AA, *JAMA Network Open*. 2021;4(7):



12

## Using Alternative Methods in Transitioning Patients from Fentanyl to Buprenorphine “Micro or Low Dose” Initiation

- This protocol has been established in a variety of ways.
- Start with a very low dose and titrates up to a standard maintenance dose.
  - ✦ The most available method conducive to use in the outpatient setting involves instructing the patient to split a 2mg BPN/NTX film or tablet in quarters initially.
  - ✦ Example:
    - Day 1: 0.5 mg once a day
    - Day 2: 0.5 mg twice a day
    - Day 3: 1 mg twice a day
    - Day 4: 2 mg twice a day
    - Day 5: 3 mg twice a day
    - Day 6: 4 mg twice a day
    - Day 7: 12 mg (stop other opioids in patients with co-occurring pain)

Note: It is prudent to use alpha 2 agonist medications, clonidine or lofexidine, and other comfort medications to assist in reducing any discomfort patient may experience during the transition.

Randhawa PA, 2020



13

## Precipitated Withdrawal Management

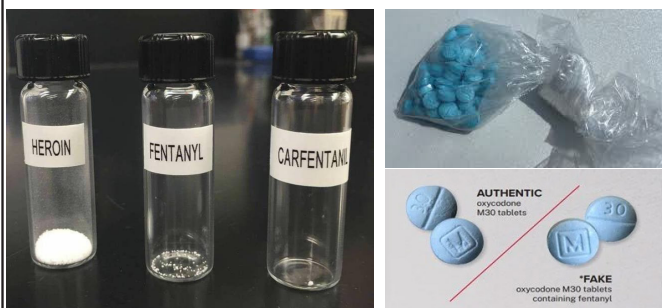
- If opioid withdrawal worsens shortly after the first dose buprenorphine may have precipitated a withdrawal syndrome
  - If a patient has precipitated withdrawal, consider:
    - Giving another 2mg dose of buprenorphine, attempting to provide enough agonist effect from buprenorphine to suppress the withdrawal
- OR**
- Stopping the initiation, provide symptomatic treatments for the withdrawal symptoms, and have patient return the next day

*Since the latter risks losing the patient, the first option is preferred.*

## Counterfeit Pills

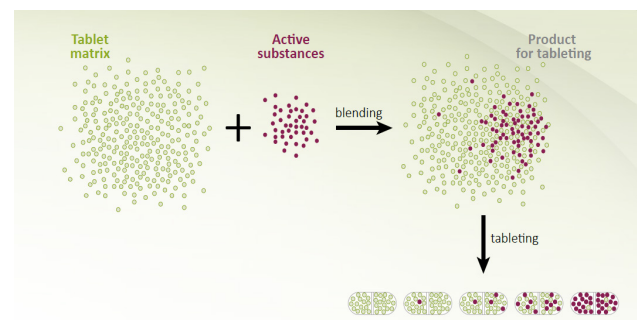
- Disguised as legitimate medication
  - Decreased sigma compared to street drugs
- Provides a false sense of safety
  - Individuals think they know exactly what they are buying
- Potency is increased
- Dosing is imprecise

## Fentanyl



Source: Images of Heroin, Fentanyl, Carfentanyl, and Authentic vs. Fake Oxycodone Tablets.

## Fentanyl



Source: DEA  
Slide Credit: "Drug Trends: Connecticut's Illicit Drug Environment", Robert Lawlor, Opioid Response Network

## Xylazine (ZIE-Luh-Zeen)

- Veterinary tranquilizers not approved for human use
- Not a federally controlled substance
- Inexpensive to purchase online
- When mixed with opioids it increases the duration of sedation – "gives it legs"
- Partial alpha-2 adrenergic agonist (similar to clonidine)
- Decreased blood pressure and respiratory rate and increased chance of overdose death
- Peripheral vasoconstriction causes severe skin infections/ulcerations/necrosis
- Not reversed with naloxone



## Overdose Risk

- IV use
- Mixing substances
- Previous overdose
- Use following abstinence
- Changes in drug supply
- Chronic health conditions



Opioid Overdose Risk Factors | Mass.gov, accessed 2024

## Overdose Prevention

- Do not pick up where you left off
- Know your supply
- Start low and go slow
- Do not mix substances
- Do not use alone
- Naloxone
- Fentanyl test strips
- Needle exchange
- Safe injection sites



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Harm Reduction | SAMHSA, accessed 2024

## Acute Pain Management in Patients Receiving MOUD

- Different Approaches:
  - Initially non-opioid analgesics (ketorolac or NSAIDs)
  - Continue same buprenorphine dose but in a split regimen
    - Buprenorphine's analgesic duration is only a few hours
    - May add or continue non-opioid analgesics
  - Increase buprenorphine dose while continuing split dose
  - Add full opioid to buprenorphine regimen
    - Typically, only done in a controlled setting
  - Stop buprenorphine and initiate full agonist therapy dosed to effect. Then return to buprenorphine following stabilization.
    - (Note: this approach may destabilize the patient and lead to worsening outcomes)



Lembke A, et al. Pain Med. 2019  
Buresh M, et al. J Gen Intern Med. 2020

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## Opioid Use Disorder and Pregnancy

- Epidemiology:
  - 15% of pregnant women had used illicit substances in the past year
  - 7% of women report using prescription opioid pain relievers during pregnancy.
  - Of those, 1 in 5 report misuse of opioids
  - Amer. College of Obstetrics and Gynecology recommends screening all patients for alcohol and other drug use.
    - Important at first prenatal visit and then periodically.



Vital Signs: Prescription Opioid Pain Reliever Use During Pregnancy — 34 U.S. Jurisdictions, 2019  
ACOG/ASAM 2017 / Ondersma SJ et al., Addiction. 2019 Sep;114(9):1683-1693

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## Buprenorphine Treatment in Pregnancy

- Initiation should begin when a woman shows objective, observable signs of withdrawal, but before severe withdrawal symptoms are evidenced.
  - >23 weeks gestation should have in-clinic observation during initiation of treatment with buprenorphine. Hospitalization may be advisable.
- Buprenorphine dosing is the same as in nonpregnant women.
  - Dosage is not linked to increased incidence of NOWS
- During pregnancy: No significant dose increases needed though may require split dosing in 3<sup>rd</sup> trimester
- Postpartum: Continue current dose of buprenorphine.
  - Return to the combination product if patient was converted to the mono product during pregnancy. No dosage changes.

Jones H, et al, 2013; Jones et al., 2014; Lund et al., 2013).

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## Neonatal Opioid Withdrawal Symptoms (NOWS)

- Epidemiology:
  - Increasing incidence of NOWS
  - Incidence of NOWS in newborns born to women with OUD is between 70 and 95% and ~50% of infants will need treatment
- Symptoms:
  - Irritability, fever, diarrhea, hyperreflexia, seizure
  - Begins 24-72 hours of birth, with peak symptoms at 3-4 days, and continues for up to one week
- Complications:
  - Associated with untreated maternal OUD
    - Increased risk of placental abruption, preterm labor, maternal obstetric complications, and fetal death



Kaakko et al., 2008  
Patrick et al., 2015  
Smith et al., 2017

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## Language and Stigma

- Addiction is one of the most stigmatized conditions
- Individuals with substance use disorders are viewed more negatively than people with physical or psychiatric disabilities
- Use of stigmatizing language (such as "substance abuser" rather than as a "person with a substance use disorder") can adversely affect quality of care and subsequent treatment outcomes

- Respectful
- Non-Judgmental
- Honest
- Clear and Understandable
- Supportive

Recovery Language	Potentially Stigmatizing Language
Substance Use Disorder	Substance Abuse
Person with a substance use disorder	Addict
Drug Free / Free from illicit and non-prescribed medications	Clean and Sober
Recurrence of substance use	Relapsed / Slipped
Medically supervised withdrawal	Detox
Positive Drug Screen	Dirty Urine
Negative Drug Screen	Clean



Botticelli and Koh, 2016  
Kelly et al., 2016  
ONDCP, 2016

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## SELF EVALUATION

### Fentanyl, Overdose Prevention, and Special Considerations

1. Which drug has been primarily responsible for the recent dramatic rise in overdose deaths?
  - a. Fentanyl
  - b. Morphine
  - c. Alprazolam
  - d. Methadone
2. Which of the following is a sign/symptom of opioid withdrawal
  - a. Anxiety
  - b. Yawning
  - c. Diarrhea
  - d. All of the above
3. T/F - Xylazine is a veterinary tranquilizer that is mixed with opioids to increase the duration of sedation.
4. Which of the following is not a risk factor for opioid overdose?
  - a. Intravenous use
  - b. Previous overdose
  - c. Use following a period of abstinence
  - d. Married
5. T/F - Overdose prevention centers on strategies such as knowing your drug supply, not using opioids alone and not mixing substances.

**Answer Key:** 1. A, 2. D, 3. T, 4. D, 5. T

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# FACULTY

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## **Nasia Safdar, MD**

Nasia Safdar, MD, of Madison, Wisconsin, is the Dr. Dennis G. Maki Endowed Faculty Fellow in the Division of Infectious Disease within the Department of Medicine and the associate dean for clinical trials at the University of Wisconsin School of Medicine and Public Health. She also holds affiliate appointments in the Department of Medicine's Division of Geriatrics, the Department of Population Health and the UW College of Engineering's Department of Industrial and Systems Engineering. Dr. Safdar leads the department in its mission to reduce healthcare-associated infections by identifying, testing, and implementing novel interventions to reduce and prevent healthcare-associated infections (HAI). Because of her work and research in this area, in 2017 she received a President's Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers. In 2014, she received the John Q. Sherman Award for Excellence in Patient Engagement. Dr. Safdar is a Fellow of the American College of Physicians and a member of the Society of Internal General Medicine among other professional memberships. In 2019, Dr. Safdar received the Oswald Avery Award for Early Achievement that honors ISDA fellows age 45 or younger for overall outstanding achievements in infectious disease. In 2021, Dr. Safdar became an invited fellow of the Alpha Omega Alpha Honor Medical Society and a American Society for Microbiology Distinguished Lecturer in 2023.

You may contact Dr. Safdar with your questions or comments at [ns2@medicine.wisc.edu](mailto:ns2@medicine.wisc.edu).



# Preventing Healthcare-Associated Infections

## Nasia Safdar, MD

### Healthcare-associated Infections

- 5 percent of all hospital admissions result in a healthcare-associated infection
- 722,000 infections
- 75,000 deaths each year
- \$28–33 billion in excess costs.



dimarik / iStock

Exhibit 7. Summary of meta-analysis additional cost estimates

	Studies (n)	Range of Estimates	Estimate (95% CI)
Adverse Drug Events (ADE)	2	\$1,277–\$9,062	\$5,746 (-\$3,950–\$15,441)
Catheter-Associated Urinary Tract Infections (CAUTI)	6	\$4,694–\$29,743	\$13,793 (\$5,019–\$22,568)
Central Line-Associated Bloodstream Infections (CLABSI)	7	\$17,896–\$94,879	\$48,108 (\$27,232–\$68,983)
Falls	3	\$2,680–\$15,491	\$6,694 (-\$1,277–\$14,665)
Obstetric Adverse Events (OBAE)	2	\$13–\$1,190	\$602 (-\$578–\$1,782)
Pressure Ulcers	4	\$8,573–\$21,075	\$14,506 (-\$14,506–\$41,326)
Surgical Site Infections (SSI)	5	\$11,778–\$42,177	\$28,219 (\$18,237–\$38,202)
Ventilator-Associated Pneumonia (VAP)	5	\$19,325–\$80,013	\$47,238 (\$21,890–\$72,587)
Venous Thromboembolism (VTE)	4	\$11,011–\$31,687	\$17,367 (\$11,837–\$22,898)
C. difficile Infections (CDI)	9	\$4,157–\$32,394	\$17,260 (\$9,341–\$25,180)

Exhibit 8. Summary of meta-analysis excess mortality estimates

	N	Range (RR)	Estimates of RR (95% CI)	Underlying Mortality	Estimates of Excess Mortality (95% CI)
Adverse Drug Events (ADE)	6	0.68–3.09	1.61 (1.14–2.27)	0.020	0.012 (0.003–0.025)
Catheter-Associated Urinary Tract Infections (CAUTI)	4	1.28–1.97	1.50 (1.06–2.11)	0.071	0.036 (0.004–0.079)
Central Line-Associated Bloodstream Infections (CLABSI)	5	1.88–4.88	2.72 (1.81–4.10)	0.086	0.150 (0.070–0.270)
Falls	1	3.50	3.50 (2.73–4.48)	0.020	0.050 (0.035–0.070)
Obstetric Adverse Events (OBAE)	—	—	—	—	0.005 (0.003–0.013)
Pressure Ulcers	3	2.42–5.06	3.26 (1.71–6.17)	0.018	0.041 (0.013–0.093)
Surgical Site Infections (SSI)	3	1.75–5.70	3.32 (1.79–6.18)	0.0114	0.026 (0.009–0.059)
Ventilator-Associated Pneumonia (VAP)	10	0.52–4.90	1.48 (0.64–3.42)	0.300	0.140 (-0.110–0.730)
Venous Thromboembolism (VTE)	9	1.01–13.63	3.15 (2.02–4.91)	0.020	0.043 (0.040–0.078)
C. difficile Infections (CDI)	13	1.17–9.60	1.80 (1.38–1.87)	0.073	0.044 (0.028–0.064)

### Types of Healthcare-associated Infections

- central line-associated bloodstream infections (CLABSIs)
- catheter-associated urinary tract infections (CAUTIs)
- abdominal hysterectomy and colon surgical site infections (SSIs),
- Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremia
- *Clostridium difficile* (C. diff).

#### Infection Control Domains for Gap Assessment

- I. Infection Control Program and Infrastructure
- II. Infection Control Training, Competency, and Implementation of Policies and Practices
  - A. Hand Hygiene
  - B. Personal Protective Equipment (PPE)
  - C. Prevention of Catheter-associated Urinary Tract Infection (CAUTI)
  - D. Prevention of Central Line-associated Bloodstream Infection (CLABSI)
  - E. Prevention of Ventilator-associated Event (VAE)
  - F. Injection Safety
  - G. Prevention of Surgical Site Infection
  - H. Prevention of *Clostridium difficile* Infection (CDI)
  - I. Environmental Cleaning
  - J. Device Reprocessing
- III. Systems to Detect, Prevent, and Respond to Healthcare-Associated Infections and Multidrug-Resistant Organisms (MDROs)

### Prior Approach to preventing HAI

- Apathy
- Necessary collateral damage of admission
- No consequences to institution or healthcare workforce
- Consequences to patients often invisible to healthcare team

Multicenter Study > Am J Med. 2000 Oct 15;109(6):476-80.  
doi: 10.1016/s0002-9343(00)00531-3.

## Are physicians aware of which of their patients have indwelling urinary catheters?

S Saint<sup>1</sup>, J Wiese, J K Amory, M L Bernstein, U D Patel, J K Zemencuk, S J Bernstein, B A Lipsky, T P Hofer

Overall, providers were unaware of catheterization for 88 (28%) of the 319 provider-patient observations. Unawareness rates by level of training were 21% for students, 22% for interns, 27% for residents, and 38% for attending physicians ( $P = 0.06$ ). Catheter use was inappropriate in 36 (31%) of the 117 patients with a catheter.

## Interventions to prevent Central Line Blood Stream Infections: 5 Key Behaviors

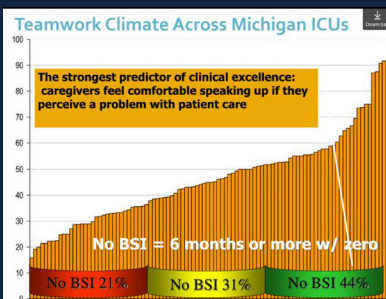
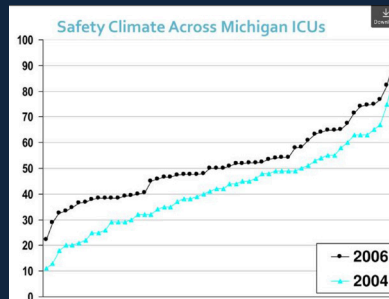
- Remove Unnecessary Lines
- Wash Hands Prior to Procedure
- Use Maximal Barrier Precautions
- Clean Skin with Chlorhexidine
- Avoid Femoral Lines

MMWR. 2002;51:RR-10

## 80% Reduction in BSI in One Year from 103 ICU

Time period	Median CRBSI rate	Incidence rate ratio
Baseline	2.7	1
Peri intervention	1.6	0.76
0-3 months	0	0.62
10-12 months	0	0.42
16-18 months	0	0.34

Data from 100 ICUs Analysis: multilevel GGLMM



### Adaptive lessons

- Commit that harm is untenable; make harm visible
  - What are CLABSI rates? Do all clinical caregivers know them?
- Ohana
  - How have you shared what you are learning with others? Administrators, clinicians, teams, facilities?
- Local modification of execution
  - Have you adapted the implementation in light of your organizational culture?

## Patient Safety Movement

- HAIs are a patient safety problem
- CDC NHSN reporting
- CMS financial penalty
- Public Reporting

## Successes in CLABSI

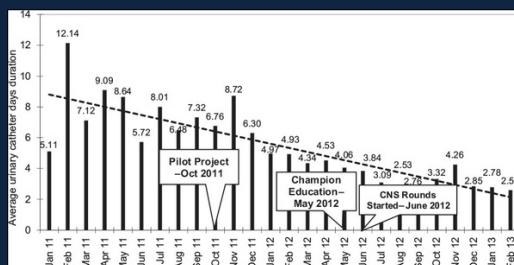
**TABLE 2. Estimated annual number of central line-associated blood stream infections (CLABSIs), by health-care setting and year --- United States, 2001, 2008, and 2009**

Health-care setting	Year	No. of infections (upper and lower bound of sensitivity analysis)
Intensive-care units	2001	43,000 (27,000–67,000)
	2009	18,000 (12,000–28,000)
Inpatient wards	2009	23,000 (15,000–37,000)
Outpatient hemodialysis*	2008	37,000 (23,000–57,000)

\* Case definitions approximate current definition of CLABSI according to the National Healthcare Safety Network.

<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6008a4.htm>

### CAUTI

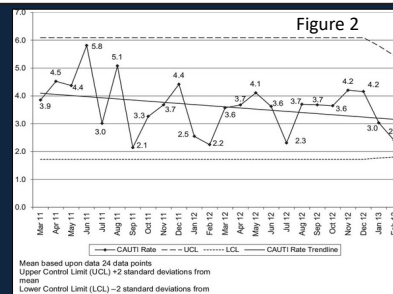


**Catheter-Associated Urinary Tract Infection: A Successful Prevention Effort Employing a Multipronged Initiative at an Academic Medical Center.**  
Purvis, Suzanne, DNP, RN, GH, Theresa, MS, RN, Kennedy, Gregory, MD, PhD, RN, Susan, DNP, RN, CPNP, CNP, Sallier, Nadia, Vanderburgh, Shelly, MS, RN, Weber, Jessica, MS, RN, ACNS-BC, CCTN  
Journal of Nursing Care Quality. 29(2):141-148, April/June 2014.  
DOI: 10.1097/NCQ.0000000000000037

Wolters Kluwer Health | OvidSP

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### Figure 2



**Catheter-Associated Urinary Tract Infection: A Successful Prevention Effort Employing a Multipronged Initiative at an Academic Medical Center.**  
Purvis, Suzanne, DNP, RN, GH, Theresa, MS, RN, Kennedy, Gregory, MD, PhD, RN, Susan, DNP, RN, CPNP, CNP, Sallier, Nadia, Vanderburgh, Shelly, MS, RN, Weber, Jessica, MS, RN, ACNS-BC, CCTN  
Journal of Nursing Care Quality. 29(2):141-148, April/June 2014.  
DOI: 10.1097/NCQ.0000000000000037

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### CAUTI

- But what about C difficile infection?

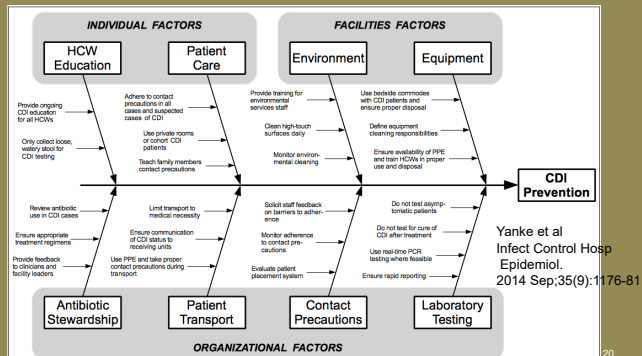
## Complexity of *C. difficile* infection

### Challenges to containment

- Uncertain incubation period
- Multiple reservoirs
- Environmental persistence
- High rates of recurrence
- Need for soap and water for hand hygiene
- Multidisciplinary approach to containment
- Need for both infection prevention protocols and antibiotic stewardship interventions

Sethi et al, Infect Control Hosp Epidemiol. 2010 Jan;31(1):21-7.

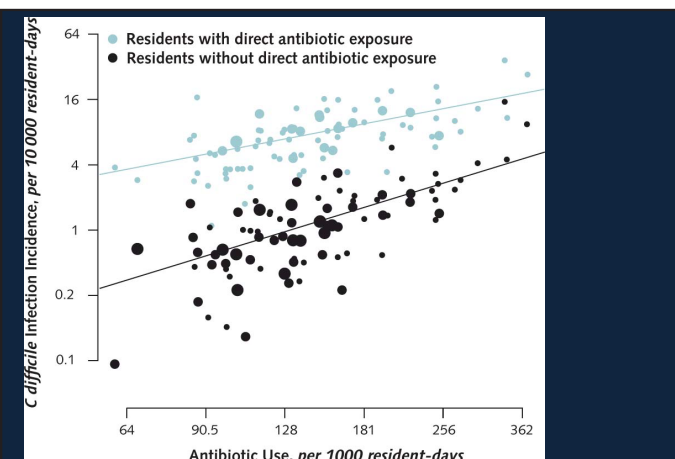
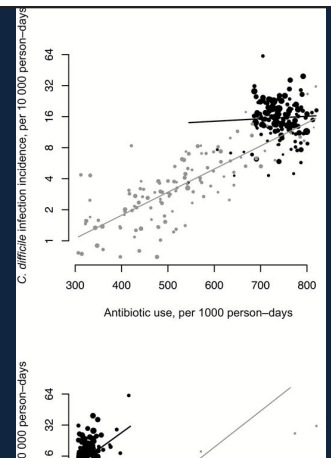
## Fishbone diagram showing the complexity of CDI



## Background

- Facility level antibiotic use major driver

Brown KA, CID Oct 2018,  
Brown KA Ann Intern Med 2016



Contents lists available at ScienceDirect

**American Journal of Infection Control**

ELSEVIER

journal homepage: [www.ajicjournal.org](http://www.ajicjournal.org)

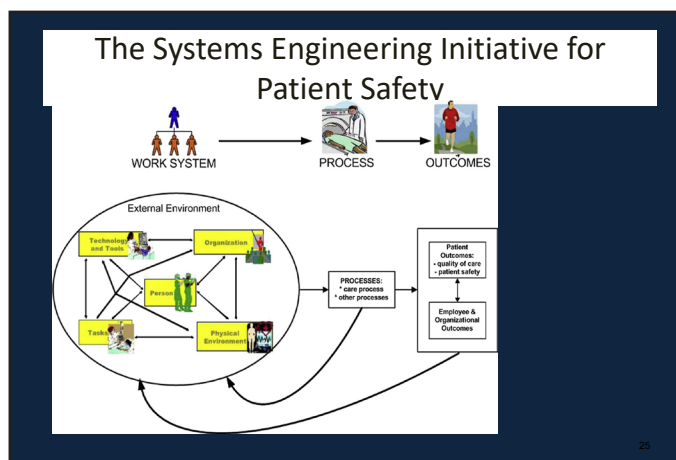
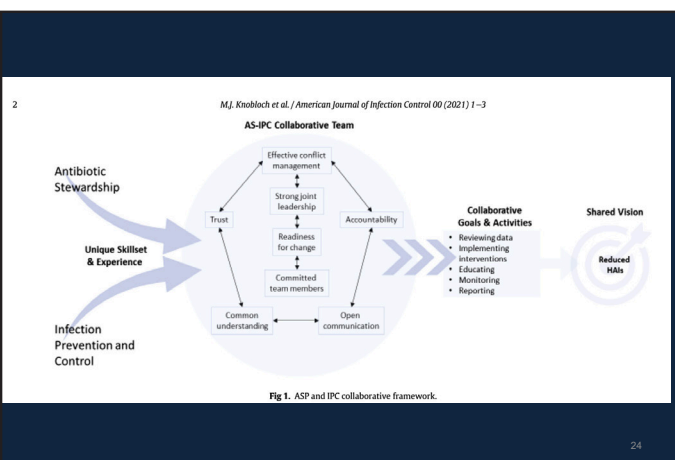
Practice Forum

**Integrating antibiotic stewardship and infection prevention and control programs using a team science approach**

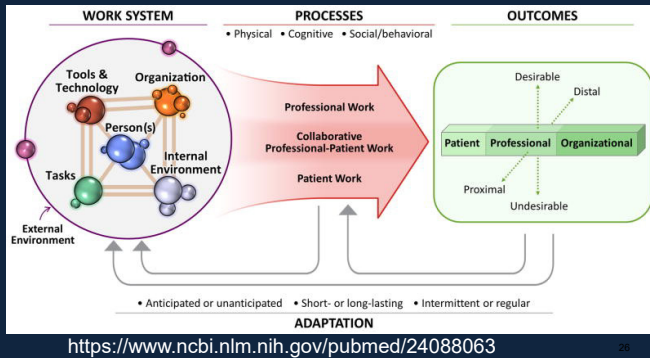
Mary Jo Knobloch PhD, MPH <sup>a,b,\*</sup>, Linda McKinley MPH, CIC <sup>a,b</sup>, Julie Keating PhD <sup>a,b</sup>, Nasia Safdar MD, PhD <sup>a,b</sup>

<sup>a</sup> Division of Infectious Disease, Department of Medicine, School of Medicine and Public Health, University of Wisconsin, Madison, WI

<sup>b</sup> Department of Research, William S. Middleton Memorial Veterans Hospital, Madison, WI



## SEIPS 2.0



## Application of SEIPS to Stewardship-the case of *C. difficile*

## Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America

Tamar F. Barlam,<sup>1,\*</sup> Sara E. Cosgrove,<sup>2,\*</sup> Lilian M. Abbo,<sup>3</sup> Conan MacDougall,<sup>4</sup> Audrey N. Schuetz,<sup>5</sup> Edward J. Septimus,<sup>6</sup> Arjun Srinivasan,<sup>7</sup> Timothy H. Dellit,<sup>8</sup> Yagwe T. Falck-Ytter,<sup>9</sup> Neil O. Fishman,<sup>10</sup> Cindy W. Hamilton,<sup>11</sup> Timothy C. Jenkins,<sup>12</sup> Pamela A. Lipsett,<sup>13</sup> Preeti N. Malani,<sup>14</sup> Larissa S. May,<sup>15</sup> Gregory J. Moran,<sup>16</sup> Melinda M. Neuhauser,<sup>17</sup> Jason G. Newland,<sup>18</sup> Christopher A. Olt,<sup>19</sup> Matthew H. Samore,<sup>20</sup> Susan K. Seo,<sup>21</sup> and Kavita K. Trivedi<sup>22</sup>

<sup>1</sup>Section of Infectious Diseases, Boston University School of Medicine, Boston, Massachusetts; <sup>2</sup>Division of Infectious Diseases, Johns Hopkins University School of Medicine, Baltimore, Maryland; <sup>3</sup>Division of Infectious Diseases, University of Miami Miller School of Medicine, Miami, Florida; <sup>4</sup>Department of Clinical Pharmacy, School of Pharmacy, University of California, San Francisco; <sup>5</sup>Department of Medicine, Weill Cornell Medical Center/New York-Presbyterian Hospital, New York, New York; <sup>6</sup>Department of Internal Medicine, Texas A&M Health Science Center College of Medicine, Houston; <sup>7</sup>Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>8</sup>Division of Allergy and Infectious Diseases, University of Washington School of Medicine, Seattle; <sup>9</sup>Department of Medicine, Case Western Reserve University and Veterans Affairs Medical Center, Cleveland, Ohio; <sup>10</sup>Department of Medicine, University of Pennsylvania Health System, Philadelphia; <sup>11</sup>Hamilton House, Virginia Beach, Virginia; <sup>12</sup>Division of Infectious Diseases, Denver Health, Denver, Colorado; <sup>13</sup>Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University School of Medicine and Nursing, Baltimore, Maryland; <sup>14</sup>Division of Infectious Diseases, University of Michigan Health System, Ann Arbor; <sup>15</sup>Department of Emergency Medicine, University of California, Davis; <sup>16</sup>Department of Emergency Medicine, David Geffen School of Medicine, University of California, Los Angeles Medical Center, Sylmar; <sup>17</sup>Department of Veterans Affairs, Hines, Illinois; <sup>18</sup>Department of Pediatrics, Washington University School of Medicine in St. Louis, Missouri; <sup>19</sup>Section on Infectious Diseases, Wake Forest University School of Medicine, Winston-Salem, North Carolina; <sup>20</sup>Department of Veterans Affairs and University of Utah, Salt Lake City; <sup>21</sup>Infectious Diseases, Memorial Sloan Kettering Cancer Center, New York, New York; and <sup>22</sup>Trivedi Consults, LLC, Berkeley, California

Clinical Infectious Diseases® 2016;62(10):e51-e77

**Table 3. Possible Metrics for Evaluation of Interventions to Improve Antibiotic Use and Clinical Outcomes in Patients With Specific Infectious Diseases Syndromes**

Process Measures	Outcome Measures
Excess days of therapy (ie, unnecessary days of therapy avoided based on accepted targets and benchmarks) <sup>a</sup>	Hospital length of stay 30-day mortality Unplanned hospital readmission within 30 d
Duration of therapy	Proportion of patients diagnosed with hospital-acquired <i>Clostridium difficile</i> infection or other adverse event(s) related to antibiotic treatment <sup>a</sup>
Proportion of patients compliant with facility-based guideline or treatment algorithm <sup>a</sup>	Proportion of patients with clinical failure (eg, need to broaden therapy, recurrence of infection)
Proportion of patients with revision of antibiotics based on microbiology data	
Proportion of patients converted to oral therapy	

Sources: [39, 50–57, 189–191].

<sup>a</sup> These metrics are applicable for antibiotic stewardship program interventions to reduce antibiotic treatment of asymptomatic bacteriuria, which, in most cases, should not be

## Methods to reduce Antibiotic Use

- Audit and Feedback
- Pre-prescription authorization

## Intervention

- Consensus on Indications
- Review of literature
- Local guidelines
- Agreement of principles
- Pilot program

## Overview of FQ PPA intervention

- When providers attempt to order FQ, an alert in EHR will appear letting them know that use of FQ is restricted. Alert will include:
  - Links to resources on possible alternative antibiotics
  - Instructions to call unit pharmacist to discuss alternatives, if necessary
  - An ordering list of alternative antibiotics (for their convenience)

- ## Overview of FQ PPA intervention
- When providers attempt to order FQ, an alert in EHR will appear letting them know that use of FQ is restricted. Alert will include:
    - Links to resources on possible alternative antibiotics
    - Instructions to call unit pharmacist to discuss alternatives, if necessary
    - An ordering list of alternative antibiotics (for their convenience)

- If after speaking to unit pharmacist provider still feels FQ is most appropriate, will need to contact ID attending from the antibiotic stewardship team to obtain approval
  - Will need to indicate in EHR reason for ordering FQ in dropdown

# FQ Alternative Alert Screen in the medical record

Alternative Selection

**levofloxacin (LEVAQUIN) tab:** Oral, starting Today at 1523  
**Administer at least 4 hours before or 8 hours after antacids containing magnesium or aluminum, sucralfate, iron, multivitamin preparations with zinc, or didanosine.**

**DRUG WARNING:** Use of fluoroquinolones is restricted at University Hospital. Use requires approval via ID consult or 3353 pager per P&T restriction.

Use weblinks at right for guidance in selecting alternatives to fluoroquinolones.

Follow weblink at right for guidance on managing patients with a reported beta-lactam allergy/intolerance.

You may also discuss alternatives with the unit pharmacist.

Web Links

[Abdominal Transplant Fluoroquinolone Allergy ICU Fluoroquinolone Alternatives](#)

[General Care Fluoroquinolone Alternatives](#)

[Treatment of Patients with Reported Allergie...](#)

Alternative	Details	Cost
cefadroxime (VANTIN) tab fosfomycin (MONURIL) oral packet nafcillin sodium monohydrate (BACRODINE) cap ampicillin/sulbactam (UNASYN) intravenous aztreonam (AZACTAM) intravenous azithromycin (ZITHROMAX) intravenous ceftazidime (ROCEPHAN) intravenous cefepime (MAXIMED) intravenous gentamicin (GARAMYCIN) intravenous piperacillin/tazobactam (ZOSYN) intravenous sulfamethoxazole-trimethoprim (BACTRIM DS) 800-160 MG po ... tobramycin (NEBRON) intravenous Cefepime and merTRONDazole Cefpodoxime and merTRONDazole	***PANEL*** ***PANEL***	

Accept Alternative

Continue With Original Order

Cancel

# FQ Alternative Alert Screen in the medical record

Alternative Selection

**levofloxacin (LEVAQUIN) tab:** Oral, starting Today at 1523  
**Administer at least 4 hours before or 8 hours after antacids containing magnesium or aluminum, sucralfate, iron, multivitamin preparations with zinc, or didanosine.**

**DRUG WARNING:** Use of fluoroquinolones is restricted at University Hospital. Use requires approval via ID consult or 3353 pager per P&T restriction.

Use weblinks at right for guidance in selecting alternatives to fluoroquinolones.

Follow weblink at right for guidance on managing patients with a reported beta-lactam allergy/intolerance.

You may also discuss alternatives with the unit pharmacist.

WeB Links

[Abdominal Transplant Fluoroquinolone Allerm ICU Fluoroquinolone Alternatives](#)  
[General Care Fluoroquinolone Alternatives](#)  
[Treatment of Patients with Reported Allergie...](#)

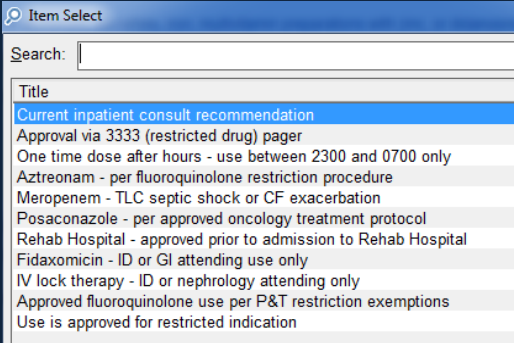
Alternative	Details	Cost
cefadroxime (VANITIN) tab fosfomycin (MONURIL) oral packet nafcillin sodium hydrate (NACROCRID) cap ampicillin/sulbactam (UNASYN) intravenous aztreonam (AZACTAM) intravenous azithromycin (ZITHROMAX) intravenous ceftazidime (ROCEPHAN) intravenous cefepime (MAXIMED) intravenous gertamicin (GARAMYCIN) intravenous piperacillin/tazobactam (ZOSYN) intravenous sulfamethoxazole-trimethoprim (BACTRIM DS) 800-160 MG po ... tobramycin (NEBRON) intravenous Cefepime and merTRONDazole Cefpodoxime and merTRONDazole	***PANEL*** ***PANEL***	

Accept Alternative

Continue With Original Order

Cancel

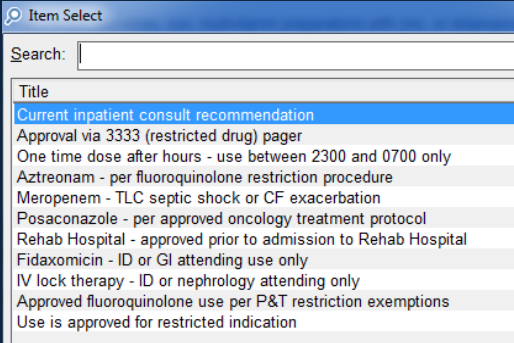
# FQ Medication Approval Screen



The screenshot shows a web application titled "FQ Medication Approval Screen". It features a search bar with the placeholder text "Item Select" and a "Search:" label. Below the search bar is a table with a single column titled "Title". The table contains several rows of text, with the first row highlighted in blue. The text in the table includes:

- Current inpatient consult recommendation
- Approval via 3333 (restricted drug) pager
- One time dose after hours - use between 2300 and 0700 only
- Aztreonam - per fluoroquinolone restriction procedure
- Meropenem - TLC septic shock or CF exacerbation
- Posaconazole - per approved oncology treatment protocol
- Rehab Hospital - approved prior to admission to Rehab Hospital
- Fidaxomicin - ID or GI attending use only
- IV lock therapy - ID or nephrology attending only
- Approved fluoroquinolone use per P&T restriction exemptions
- Use is approved for restricted indication

# FQ Medication Approval Screen



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## Data on Implementation Process (Qualitative)

- Documents and notes related to implementation
  - Training materials
  - Meeting minutes
- Focus group and/or interviews with attendings, residents, advanced practice providers and pharmacists
- Brief online clinician survey on intervention acceptability

- ## Data on Implementation Process (Qualitative)
- Documents and notes related to implementation
    - Training materials
    - Meeting minutes
  - Focus group and/or interviews with attendings, residents, advanced practice providers and pharmacists
  - Brief online clinician survey on intervention acceptability

# FQ use before and after

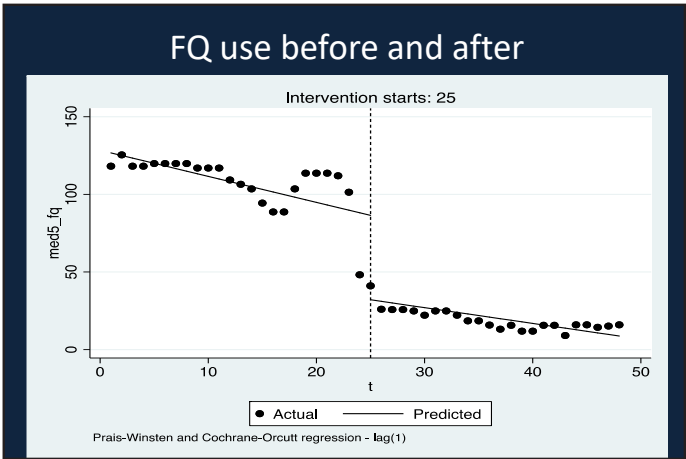
Intervention starts: 25

med5\_fq

t

Actual Predicted

Prais-Winsten and Cochrane-Orcutt regression - lag(1)





## Why is antibiotic stewardship challenging

Social determinants of antibiotic use  
Prescribing is a social act, driven beyond clinician knowledge  
Hierarchy  
Prescribing etiquette  
Opinions and deference  
Risk, anxiety, fear, emotional desire  
Adverse effects  
MDR is a problem globally but not locally

(1) Charani et al. CID 2013:57, (2) Lewis et al. J R Soc Med 2009:102, (3) Armstrong et al. Soc Health Ill 2006:28, (4) Livorsi et al. ICHE 2015:36, (5) DeSouza et al. J Antimicrob Chemother 2006:58, (6) Charani et al. CID 2013:57, (7) Grant et al. Imp Sci 2013:8, (8) Cortoos et al. J Antimicrob Chemother 2008:62

Julie Symczak-SHEA 2019 stewardship talk

## Summary

- Healthcare-associated infections remain a challenge
- They are often multidrug resistant
- They represent a threat to patient safety
- Infection control and antibiotic stewardship can greatly reduce healthcare-associated infections
- High fidelity to prevention interventions is needed to sustain success.



## SELF EVALUATION

### Preventing Healthcare-Associated Infections

1. 1. What percentage of hospital admissions result in a healthcare-associated infection (HAI)?
  - a. 1%
  - b. 3%
  - c. 5%
  - d. 10%
2. Which of the following is NOT typically classified as a healthcare-associated infection (HAI)?
  - a. Central line-associated bloodstream infection
  - b. Catheter-associated urinary tract infection
  - c. Salmonella enteritis
  - d. Surgical site infection
3. Which factor contributes most significantly to the complexity of managing Clostridium difficile infections?
  - a. Lack of antibiotics
  - b. Environmental persistence and high recurrence
  - c. High patient immunity
  - d. Low transmission rates
4. What approach was used to successfully reduce CAUTIs at an academic medical center?
  - a. Antibiotic treatment alone
  - b. Multipronged prevention initiative
  - c. Limiting all catheter use
  - d. Surgical interventions
5. What is a key feature of the fluoroquinolone (FQ) antibiotic stewardship intervention described in the presentation?
  - a. Mandatory use of FQs in all infections
  - b. No need for documentation
  - c. EHR alerts with alternative options and ID approval requirements
  - d. Automatic prescription refill for FQs

**Answer Key:** 1. C, 2. C, 3. B, 4. B, 5. C

## Addressing Intergroup Anxiety in Clinical Encounters

*Rachel D. Godsil, JD*

### Excellence in Health Care: Inspiring Patient Trust

Managing Intergroup Anxiety

Rachel Godsil  
Rutgers Law School  
Perception Institute

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### About Perception Institute

Turning research into remedies



Founding Team



john a. powell



Alexis McGill  
Johnson

Health Work



Rachel Godsil

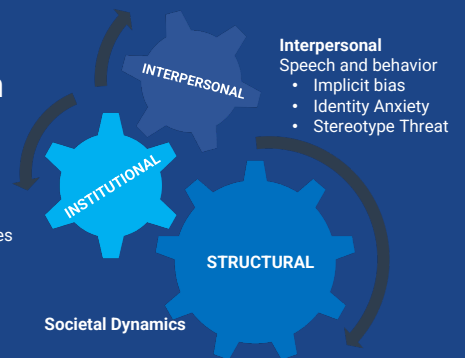


Afua Addo, MHC

The goal: to inspire patient trust.

### What gets in the way?

Institutional  
Systemic  
Policies and practices



### Explicit Bias

The attitudes and beliefs we have about a person or group on a conscious level.



### Implicit Bias

The brain's automatic, instant association of stereotypes or attitudes toward particular groups, often without our conscious awareness



## Scenario

A patient, a Latino man, is being seen after a longer than expected wait. Upon first walking into the room, the provider stops suddenly and says, Oh. . .you're back. You were here about a month ago, right? The patient replies, "No, this is my first time here." The provider stammers and says, "Oh, sorry. My mistake. Please tell me more about the reason for your visit today."

The patient describes the reason for his visit. His face is neutral. He does not offer many details. The provider doesn't ask many follow up questions and seems distracted. The patient leaves worried the provider does not fully understand the full story behind his visit today. And the provider finishes the visit feeling uncomfortable.



## Intergroup Anxiety

A stress response before, during, or after a cross-group interaction

## Cross-group Interactions

Marginalized Group

↓  
Fear  
Negative Treatment



Dominant Group

↓  
Fear  
Negative Perception

Amodio, D. M. (2009)

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## How does intergroup anxiety show up?

Cognitive interference

Avoid others

Awkward attempts to connect

Burden an out-group to do navigation

Shorter interactions

Experience identity disappointment

Source: Amodio, D. M. (2009)

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First impressions matter

## Might race affect our interactions?



B

Goal: Be liked

Goal: Be Respected

Goal: Be liked

11

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## Interaction dynamics:

- shorter visits
- health care provider sharing less information.

Impact of Intergroup Anxiety in health care

Cooper et al. (2003), Gordon, Street, Short, and Souchek (2006), Hermal et al. (2015), Grant et al. (2020)

Impact of Identity Anxiety

## Treatment decisions

- "Protective self-preservation style" characterized by avoidance of conflict and feelings of discomfort.
- Increased referrals to specialists and more severe prescriptions to evade persuasion, education, and potential conflict.

Cooper et al. (2003), Gordon, Street, Short, and Souchek (2006), Hermal et al. (2015), Grant et al. (2020)

## Interventions

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## Addressing Identity Anxiety

Evidence-based interventions

Positive priming

Growth mindset

Intergroup contact

Behavioral scripts

RESET

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## Positive priming

**How to use**

Think about prior positive cross-group contact before a new cross-group interaction.

**Why does it work?**

It helps to facilitate a positive intergroup experience and establishes more positive expectation for interactions, which flow into more positive experiences.

Source: Page-Gould et al., 2010; Mulist et al., 2008  
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## Intergroup contact

- Connection to people outside our group reduces anxiety
- Sustained cross-group contact builds resilience for future interactions
- This is not a one-way dynamic. **Ideal conditions:** equal status between groups, cooperation, common goals, and institutional support for the contact

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## Behavioral scripts

**How to use**

Write, validate and rehearse your scripts.

**Why do they work?**

Scripts help familiarize the brain with new schemas or responses to manage anxiety in cross-group interactions.

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R  
E  
S  
E  
T

Refocus conversation

Emphasize apology

Skip self-justification

Explore accountability

Thank you

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## Scenario Options: Preventative

A patient, a Latino man, is being seen after a longer than expected wait. Upon first walking into the room, the provider thinks she recognizes the patient but first says, "Good afternoon, I am sorry you had to wait so long." Then she looks at the chart to see if it is the patient and realizes that this is a first visit. She introduces herself and says, "and you are Mr. Juan Rose? How can I help you today?"

## Scenario: Responsive

A patient, a Latino man, is being seen after a longer than expected wait. Upon first walking into the room, the provider stops suddenly and says, Oh . . . you're back. You were here about a month ago, right? The patient replies, "No, this is my first time here." The provider pauses for a breath and says, "I am really sorry for your long wait and my awkward mistake. I hope we can begin again?" The patient nods his head. "I am Dr. Rogers, and you are Mr. Juan Rose? How can I help you today?"

The patient describes the reason for his visit. His face is neutral. He does not offer many details. The provider says, "I want to make sure you have a chance to share all that you are experiencing. Can I ask you a set of additional questions and then we can talk about next steps. How does that sound to you?" The patient begins to relax and to feel more comfortable with the provider.

PERCEPTION INSTITUTE  
Research · Representation · Reality

contact@perception.org

Thank you!

## SELF EVALUATION

### Addressing Intergroup Anxiety in Clinical Encounters

1. What is intergroup anxiety?
  - a. The fear of failing a test in a group setting
  - b. A stress response during, before, or after a cross-group interaction
  - c. Anxiety caused by group projects in medical school
  - d. A type of general anxiety disorder
2. T/F - Dominant groups experiencing intergroup anxiety fear being perceived as biased, while non dominant groups experiencing intergroup anxiety fear being subjected to bias.
3. Which of the following is NOT a consequence of intergroup anxiety in healthcare?
  - a. Improved patient diagnosis
  - b. Sharing less information
  - c. Shorter visits
  - d. More severe prescriptions
4. How can we reduce intergroup anxiety?
  - a. Avoid patients from different backgrounds
  - b. Assign minority patients to specialists only
  - c. Focus on speed during consultations
  - d. Increase intergroup contact and use behavioral scripts
5. Which of the following best represents the RESET accountability script?
  - a. *"I didn't mean to hurt you, but I was under a lot of pressure. I'll try to explain where I was coming from."*
  - b. *"Let's just move forward—there's no point in rehashing the past. We've both made mistakes."*
  - c. *"I hear that what I said caused harm. I'm sorry. I won't try to explain it away. I want to understand how I impacted you and what I can do to prevent it in the future—thank you for your honesty."*
  - d. *"I said I was sorry already. Can we move on?"*

**Answer Key:** 1. B, 2. T, 3. A, 4. D, 5. C



# Medication and Behavioral Treatment for Opioid Use Disorder

## Brian Fuehrlein, MD, PhD

### Opioids

- Full agonists
- Partial agonists
- Antagonists
- Receptor affinity vs strength of action
- Time to peak effect
- Duration of action

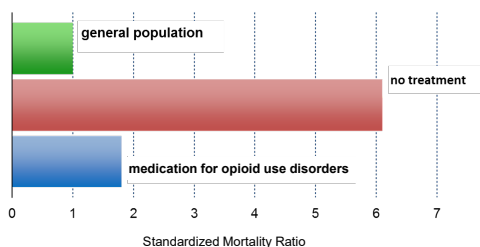


### MOUD Treatment Goals

- Range of treatment goals
  - Minimization of harms from ongoing use
  - Sustained recovery with abstinence from all substances
- Treatment Options
  - ✦ Medication for Opioid Use Disorder (MOUD); FDA approved options include:
    - Buprenorphine: Partial Agonist at the mu-receptor
    - Methadone: Full Agonist at the mu-receptor
    - Naltrexone/Naloxone: Antagonists at the mu-receptor
  - ✦ Behaviorally-Oriented Treatment
- Ultimate Goal: Maintain long-term recovery while still taking medication and/or after potential discontinuation.

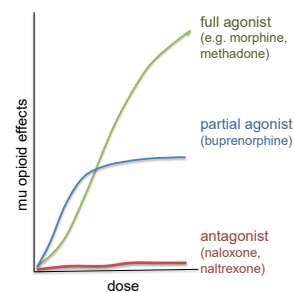
### Benefits of Medication for Opioid Use Disorders (MOUD) Decreased Mortality

#### Death rates:



Dupouy et al., 2017  
Evans et al., 2015  
Sordo et al., 2017

### MOUD



### Major Features of Methadone

#### Full Agonist at mu receptor

#### Long acting

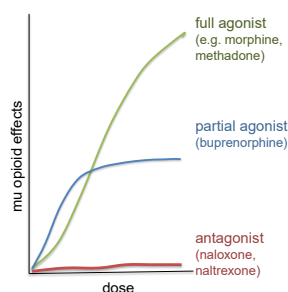
- Half-life ~ 15-60 Hours

#### Weak affinity for mu receptor

- Can be displaced by partial agonists (e.g. buprenorphine) and antagonists (e.g. naloxone, naltrexone), which can both precipitate withdrawal

#### Monitoring

- Significant respiratory suppression and potential respiratory arrest in overdose
- QTc prolongation



### Methadone Mechanism of Action

- Being a full agonist with a long half-life, methadone suppresses signs and symptoms of opioid withdrawal by reaching a steady-state level with once daily dosing
- It eliminates opioid cravings
- May also serve to block the reinforcing effects of illicit opioids

## Methadone Delivery

- For treatment of OUD, methadone must be administered in a federally regulated opioid treatment program
- Patients are seen daily for administered dosing with gradually increasing take-home privileges on symptom improvement



## Methadone Side Effects

- Respiratory depression, particularly with benzos or alcohol
- Prolonged QTc at doses >100mg
- Weight gain
- Constipation
- Decreased testosterone
- Dry mouth
- Urinary retention

## Buprenorphine

- DATA 2000 permitted scheduled III-V medications to treat opioid use disorder in an office-based setting
- Buprenorphine is schedule III
- Partial agonist at the *mu*-opioid receptor
- Reduces cravings and eliminates withdrawal
- Unlike full agonists, partial agonists create a ceiling effect at higher doses – thus no increased respiratory depression or euphoria at higher doses



## Major Features of Buprenorphine

### Long acting

- half-life ~ 24-36 Hours

### Partial agonist at *mu* receptor

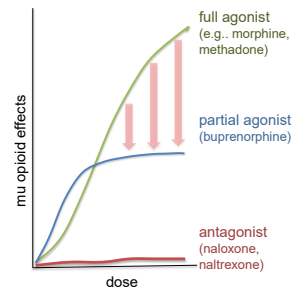
- Comparatively minimal respiratory suppression and *unlikely* to lead to fatal respiratory suppression even at high doses

### High affinity for *mu* receptor

- blocks* other initiated opioids
- displaces* other current opioids
  - can precipitate withdrawal

### Slow dissociation from *mu* receptor

- contributes to its long duration of action.



## Buprenorphine Pharmacology

- Compared to methadone, buprenorphine has a reduced overdose potential and improved safety profile
- Partial agonist may precipitate withdrawal if taken by someone who is taking daily doses of a full agonist – need to be in mild withdrawal before taking the first dose
- Buprenorphine has a high affinity to the *mu* receptor and results in blocking other opioids
- Formulated with naloxone (4:1 ratio) to reduce misuse and diversion – naloxone is not bioavailable unless injected

## How Does Buprenorphine Work for OUDs?

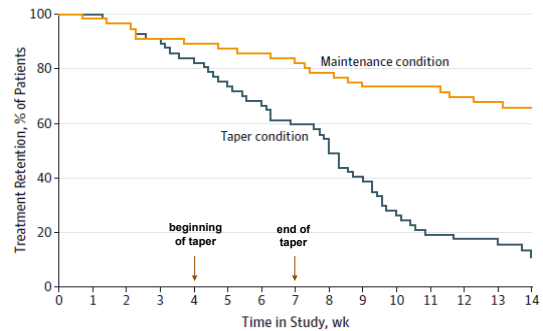
- High affinity for, and slow dissociation from the *mu* receptor leads to:
  - Prevention of withdrawal symptoms
  - Decreased cravings
  - Decreased effects of other opioids
- However, it is unlikely to block *all* effects from an opioid taken after initiation of buprenorphine treatment:
  - Because binding to *mu* receptors is a dynamic process; while effects may be less, they are not likely to be completely eliminated.



## Buprenorphine Formulations

- Buprenorphine IV (1981 approved)
  - Indication: **PAIN**
- Buprenorphine (2002 approved)
  - Indication: **OPIOID USE DISORDER**
  - Tablets available
  - Indication (one formulation): **PAIN (2017 approved)**
- Buprenorphine/Naloxone (2002 approved)
  - Indication: **OPIOID USE DISORDER**
  - SL/Buccal Tablets and Film available
  - 8mg/2mg and 2mg/0.5mg buprenorphine/naloxone tabs/films**
- Buprenorphine Patches (2010 approved)
  - Indication: **PAIN**
- Buprenorphine Implants (2016 approved) – **now off-market in the US**
  - Indication: **OPIOID USE DISORDER**
- Buprenorphine Depot Injections (2017 approved)
  - Indication: **OPIOID USE DISORDER**
  - Two products now available – FORMULARY, no Criteria for Use

## Buprenorphine: Maintenance vs. Taper



## Rationale for the Combination of Buprenorphine with Naloxone

- When used as prescribed (sublingual or buccal administration), there is minimal bioavailability of naloxone
- Compared to buprenorphine alone, the buprenorphine/naloxone combination if injected:
  - is more likely to be experienced as a “bad drug” or precipitate withdrawal in persons physically dependent on opioids. (Note: both can result in withdrawal if patient was not already in w/d)
  - will prolong the onset of buprenorphine, and a primary driver of injection drug use is the speed in which a drug gets to the brain.
  - initially will produce less euphoria (similar to placebo) in those who are physically dependent on opioids
- Per prescription, combination product is less likely to be diverted**



Comer et al., 2010  
Jones et al., 2015  
Stoller et al., 2001  
Mendelson et al., 1997

## Major Features of Naltrexone

**Full Antagonist** at mu receptor

- Competitive binding at mu receptor

**Long acting**

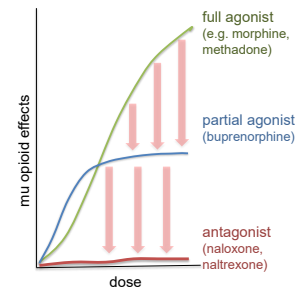
- Half-life:
  - Oral ~ 4 Hours
  - IM ~ 5-10 days

**High affinity** for mu receptor

- Blocks other opioids
- Displaces other opioids
  - Can precipitate withdrawal

**Formulations**

- Tablets: Revia®: FDA approved in 1984
- Extended-Release intramuscular injection: Vivitrol®: FDA approved in 2010



## Extended-Release Naltrexone

- Vivitrol™
- Opioid antagonist
- Provides complete blockade of the mu-opioid receptors (though maybe overridden in emergencies for acute pain control)
- Counterintuitively, may reduce cravings for opioids (different mechanism than methadone/buprenorphine)
- When initiated successfully, as effective as buprenorphine
- Note that naloxone is the overdose reversal agent and not a medication for OUD

Tanum et al. Effectiveness of injectable extended-release naltrexone vs daily buprenorphine-naloxone for opioid dependence. JAMA Psychiatry, 2017;74(12):1197-1205

## Naltrexone Treatment: Mechanism

There are two possible mechanisms of therapeutic effect:

- Behavioral mechanism:** blockade of the reinforcing effects of opioids leads to gradual extinction of drug seeking and craving
  - Patients who use opioids while on naltrexone experience no effect of exogenous opioids and often stop using them
- Pharmacological mechanism:** naltrexone decreases reactivity to drug-conditioned cues and decreases craving thereby minimizing pathological responses contributing to relapse

As naltrexone has a different mechanism of action than methadone or buprenorphine, it may be acceptable to or effective for, different subgroups of patients, thus helping to attract more patients into effective treatment overall.

## Naltrexone Considerations: Initiation

- Prescribing information recommends patients be opioid-free for 7-10 days before initiation to avoid precipitated withdrawal
  - Abstinence for 7 to 10 days is most challenging.
    - Non opioid medications for withdrawal (e.g. clonidine) can be helpful
    - Inpatient/residential treatment programs, where medically managed withdrawal can be accomplished are ideal settings for initiating.
      - There is poor access to such programs due to limited third party reimbursement
  - More rapid methods for naltrexone initiation utilizing low dose naltrexone have been reported and may shorten and protect the patient in the period prior to injection.

Williams et al., 2017  
Sullivan et al., 2017



Providers  
Clinical Support  
System

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## Medications for OUD

	Methadone	Buprenorphine (Oral)	Naltrexone (IM)
Mechanism of Action	Full Agonist on Opioid Receptor	Partial Agonist on Opioid Receptor	Antagonist on Opioid Receptor
Dosing	80mg-100mg (Usual Dose)	4-32mg	380mg Depot Injection
Advantages	<ul style="list-style-type: none"> <li>Provided in a highly structured supervised setting where additional services can be provided on-site and diversion is unlikely</li> <li>Maybe effective for individuals who have not benefited sufficiently from partial agonists or antagonists</li> </ul>	<ul style="list-style-type: none"> <li>Improved safety due to partial agonism</li> <li>Availability in office-based settings</li> </ul>	<ul style="list-style-type: none"> <li>No addictive potential or diversion risk</li> <li>Available in office-based settings</li> <li>Option for individuals seeking to avoid any opioids</li> </ul>



Providers  
Clinical Support  
System

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## Contingency Management

- Provides tangible rewards to reinforce positive behaviors, such as abstinence
- Voucher-based reinforcement involves vouchers that are exchanged for goods and services
- Vouchers increase in value with more negative urine drug screens
- Prize incentives provide chances to win cash prizes
- Each negative urine is a chance to win
- "In this systematic review and meta-analysis that included 74 randomized clinical trials and 10,444 adults receiving medication for opioid use disorder, the efficacy of contingency management was associated with abstinence from 4 types of substance use (psychomotor stimulants, polysubstance use, illicit opioids, and cigarettes) and improved treatment attendance and medication adherence."*

Bolivar HA, Klemperer EM, Coleman SRM, DeSarno M, Skelly JM, Higgins ST. Contingency Management for Patients Receiving Medication for Opioid Use Disorder: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2021;78(10):1092-1102. doi:10.1001/jamapsychiatry.2021.1969



Providers  
Clinical Support  
System

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## Alcoholics/Narcotics Anonymous

- Founded in 1935
- "Primary purpose is to stay sober and help other alcoholics achieve sobriety"
- "The only requirement for AA membership is a desire to stop drinking"
- No cost, no side effects, readily available, and may greatly benefit the patient
- Nearly all patients with a substance use disorder will be familiar with AA, their providers should be too
- AA is the primary psychosocial support available

Tonigan, S., et al. Participation and involvement in Alcoholics Anonymous, 2003



Providers  
Clinical Support  
System

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## Alcoholics Anonymous

"There is high-quality evidence that manualized AA/TSF interventions are more effective than other established treatments, such as CBT, for increasing abstinence. Non-manualized AA/TSF may perform as well as these other established treatments. AA/TSF interventions, both manualized and non-manualized, may be at least as effective as other treatments for other alcohol-related outcomes. AA/TSF probably produces substantial healthcare cost savings among people with alcohol use disorder."

Kelly JF, Humphreys K, Ferri M. Alcoholics Anonymous and other 12-step programs for alcohol use disorder. *Cochrane Database of Systematic Reviews* 2020, Issue 3. Art. No.: CD012880. DOI: 10.1002/14651858.CD012880.pub2



Providers  
Clinical Support  
System

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## Alcoholics Anonymous

- The recovery program
  - Meetings (90 in 90)
  - Sponsorship
  - Step work
  - Commitments



Providers  
Clinical Support  
System

25

## SELF EVALUATION

### Medication and Behavioral Treatment for Opioid Use Disorder

1. T/F - Methadone is a full agonist at the mu opioid receptor
2. Which of the following is true of buprenorphine?
  - a. It is a full agonist at the mu opioid receptor
  - b. It has a low affinity for the mu opioid receptor
  - c. It is a long acting medication with a half life 24-36 hours
  - d. It is a schedule 1 medication
3. T/F - Naltrexone is an opioid receptor antagonist and is available in PO or long-acting IM forms.
4. What is contingency management?
  - a. A voucher-based incentive program that reinforces positive behaviors, such as abstinence
  - b. An individual therapy aimed at improving coping skills
  - c. Family therapy aimed at supporting loved ones
  - d. An involuntary substance use commitment for court mandated treatment
5. T/F - The three primary medications for management of OUD are methadone, buprenorphine and extended-release naltrexone.

**Answer Key:** 1. T, 2. C, 3. T, 4. A, 5. T