

THE
2026-27

State Requirements COURSE

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



AMERICAN EDUCATIONAL INSTITUTE, INC.

111 E. Merrill Street • Suite 300
Birmingham, MI 48009

1 800 354-3507
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Seminar Information (800) 354-3507 or (248) 433-0606

Fax (248) 433-0911

www.AEIseminars.com E-Mail: DVictor@AEIseminars.com

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 2026–27 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 address required topics including implicit bias, child abuse recognition and reporting, opioid prescribing and pain management, healthcare-associated infections, and end-of-life care. Additional presentations will explore cross-cultural communication in healthcare, strategies for building trust and improving treatment adherence, the diagnosis and management of depression, and current approaches to the prevention and treatment of *Clostridioides difficile* infection. These timely discussions are designed to enhance clinical decision-making, strengthen patient-provider relationships, and support high-quality, patient-centered care.

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

TABLE OF CONTENTS

- COURSE OBJECTIVES
- DISCLOSURES
- PRESENTATIONS

Stereotype Threat and Treatment Adherence: Building Trust in Healthcare Settings *Rachel Godsil, JD*

Rachel Godsil, JD - Biography	6
Presentation Outline.....	7
Self Evaluation.....	11

Preventing Child Maltreatment Through Relational Care *RJ Gillespie, MD, MHPE, FAAP*

RJ Gillespie, MD, MHPE, FAAP - Biography	12
Presentation Outline.....	13
Self Evaluation.....	20

An Evidence-Based Approach to Pain Management *Neil Gokal, MD, FAAFP*

Neil Gokal, MD, FAAFP - Biography	21
Presentation Outline.....	22
Self Evaluation.....	29

Cross Cultural Communication In Healthcare *Neil Gokal, MD, FAAFP*

Presentation Outline.....	30
Self Evaluation.....	37

Ethical Tensions at the End of Life *Adam Marks, MD, MPH, FAAHPM*

Adam Marks, MD, MPH, FAAHPM - Biography	38
Presentation Outline.....	39
Self Evaluation.....	44

Clostridioides difficile: Current Approaches to Diagnosis, Treatment, and Prevention

Nasia Safdar, MD, PhD, MBA

Nasia Safdar, MD, PhD, MBA - Biography	45
Presentation Outline.....	46
Self Evaluation.....	53

Opioid Use in Pain Management *Neil Gokal, MD, FAAFP*

Presentation Outline.....	54
Self Evaluation.....	62

Depression: Diagnosis and Treatment *Leslie S. Zun, MD, MBA, FACEP, FAAEM*

Leslie S. Zun, MD, MBA, FACEP, FAAEM - Biography	63
Presentation Outline.....	64
Self Evaluation.....	72

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COURSE OBJECTIVES



After completing *The 2026-27 State Requirements Course* you should have acquired the knowledge that will better enable you to better:

- Better understand **how stereotype threat impacts treatment adherence** and identify strategies to reduce its effects in clinical encounters.
- Describe the role of **early relational health and trauma-informed care** in preventing child abuse and promoting long-term well-being.
- Understand common **pain mechanisms and treatment options** to support safe, effective, and patient-centered pain management.
- Understand how social determinants of **health and cultural context influence communication**, decision-making, and health outcomes in clinical care.
- Apply ethical principles to complex **end-of-life situations** involving truth-telling, intent in symptom management, and advance care planning for dementia.
- Apply evidence-based strategies for the **diagnosis and management of Clostridioides difficile infection**, including prevention of recurrence.
- Evaluate the appropriate use of **opioids in pain management** using current clinical guidelines, risk assessment strategies, and patient-centered decision-making.
- Recognize the **clinical features of depression** and select appropriate pharmacologic and non-pharmacologic treatment strategies.

All learning objectives above address IOM/ACGME core competencies.

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FACULTY DISCLOSURES



The individuals listed below have control over the content of *The 2026-27 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

Rachel D. Godsil, JD, faculty member

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

RJ Gillespie, MD, MHPE, FAAP, faculty member

Leslie S. Zun, MD, MBA, FACEP, FAAEM, faculty member

The following faculty members of *The 2026-27 State Requirements Course* have a financial relationship with an ineligible company:

Nasia Safdar, MD, John Snow – consultant

Neil Gokal, MD, FAAFP, faculty member, consultant for Exact Sciences.

All lectures presented by speaker with relevant financial relationships have been peer reviewed. All speakers with finance relationships have attested that clinical recommendations they make are evidence-based and free of commercial bias.

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

FACULTY

Rachel 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.

Stereotype Threat and Treatment Adherence: Building Trust in Healthcare Settings

Rachel Godsil, JD

Stereotype Threat and Treatment Adherence: Building Trust in Healthcare Settings

Rachel Godsil
Rutgers Law School
Perception Institute

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About Perception Institute

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Health Work



john a. powell



Alexis McGill Johnson



Rachel Godsil

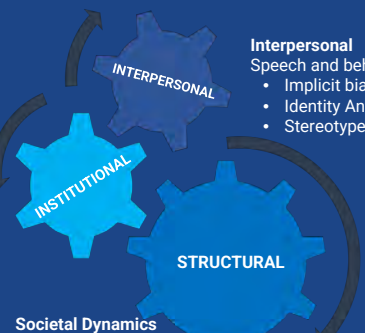


Afua Addo, MHC

The goal: to promote patient adherence to treatment

What gets in the way?

Institutional Systemic
Policies and practices



Interpersonal
Speech and behavior

- Implicit bias
- Identity Anxiety
- Stereotype Threat

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:



Explicit Bias

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



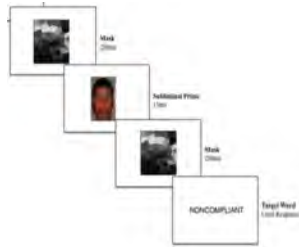
Implicit Bias

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



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)

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, 2002

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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Scenario

Joanne is a Black corporate lawyer visiting the office of a white dermatologist, Dr. Rogers, for the first time in an affluent, white neighborhood. Upon arrival, Joanne notes the wall art of white faces and that she is the only person of color in the reception area. Upon check in, the white receptionist smiles and asks, "Do you have insurance?" Joanne later notices that the receptionist asks a white patient, "Can I have your insurance card?" Dr. Rogers is 25 minutes late, and when she finally enters the room, she does not introduce herself, calls Joanne by her first name, stands throughout the visit, and does not apologize for the delay. Joanne begins to wonder if she is simply an unskilled clinician and communicator or if she may be treating her differently because she is Black. She is afraid to address her worry and does not share the main reason for her visit.

Wilson et al. 2020



Stereotype Threat:

Concern that one's performance in a particular context will **confirm a pre-existing stereotype** of one's group



Underperformance



➔ Healthcare Stereotype Threat

Healthcare Stereotype Threat (HCST) refers to the fear and threat of being perceived negatively based on identity-related stereotypes and may influence health and healthcare experiences.

LeBlanc et al. (2024); Wilson et al. (2020); Abdou et al. (2016); Grady & Edgar (2003); Lillie-Blanton et al. (2000)

Experiencing stereotype threat

What happens?

Our brain is focused on disproving our group's negative reputation

- Heart rate increases
- Blood pressure rises
- Brain diverts cognitive resources away from task

Walter & Spencer (2009); Lewis & Sekaquaptewa (2016)

What causes threat?

- ➔ Awareness that providers may endorse stereotypes
- ➔ Anticipating bias
- ➔ Witnessing differential treatment
- ➔ The environment suggests they do not belong

"There's a lack of respect . . . They think they can get away with a lot because 'Here's another dumb Mexican.'"

Grady & Edgar (2003); Abdou et al. (2010); Gonzalez et al. (2018)

The environment can cue threat

Stereotype-based posters can increase anxiety and cue stereotype threat for those in the targeted group

Abdou & Fingerhut (2014)

Impact on Patients

- Impaired communication with provider
- Discounting provider feedback, presuming it is based on stereotypes
- Difficulty adhering to treatment plan
- Disengagement, avoidance of healthcare
- Resulting in adverse health outcomes

Aronson et al. (2013); Burgess et al. (2010); LeBlanc et al. (2024)

Interventions

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Bias Override: Align Behavior with Values

B Protocol

R Pause

E Listen

A

K

Create an identity-safe environment

- Visual cues such as nondiscrimination policies and verbally stressing that diversity is valued can reduce patients' experience of stereotype threat
- Increasing the diversity of the workforce in a healthcare setting may also symbolically send a signal to patients of color that the environment is safe



Aronson et al. (2013); Abdou & Fingerhut (2014); Abdou et al. (2016); Burgess et al. (2010)

Values Affirmation

- Help patients focus on their strengths and successes
- Values affirmation exercises prior to primary care visits are shown to encourage patient engagement



Aronson et al. (2013); Havranek et al. (2012)

Growth Mindset

- Often, abilities are conceptualized as an entity ("you have it or you don't"). In a growth mindset, they are seen as an **increment** ("you can learn it")
- A growth mindset can help patients on a health journey, especially patients who face ongoing challenges



Dweck (2006); Steele (2010)

Scenario: Preventative and Responsive

Joanne is a Black corporate lawyer visiting the office of a white dermatologist, Dr. Rogers, for the first time in an affluent, white neighborhood. Upon arrival, Joanne notes the wall art includes images of people of all races and ethnicities. She sees mostly white people in the waiting room. Upon check in, the white receptionist smiles and says, "We have a few forms for all new patients, please let me know if you have any questions." Joanne later notices that the receptionist says exactly the same thing to a white patient. Dr. Rogers is 25 minutes late, and when she finally enters the room, she says, "I am so very sorry to have kept you waiting so long. I am Dr. Rogers and you are Ms. Joanne Simon?" Joanne nods and says, "please call me Joanne."

Wilson et al. 2020

Ensure consistent and constructive feedback

Patients may experience **Attributional Ambiguity**: uncertainty about the reliability of feedback

If **negative**—is it warranted? Is it based on stereotypes?



If **positive**—did I earn it? Is it based on low expectations?

Give "wise" feedback

- Identify goals & aspirations.** Engage in collaborative discussion about goals.
- Set **high expectations**, and be specific about achievable, intermediate outcomes.
- Establish **individual capacity**. Name confidence that the patient can achieve goals. Be specific about patient assets that will support their journey.
- Share **candid feedback**. Be specific about actual challenges, necessary behavior changes, or other critical feedback.

Yeager et al., (2014)



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Thank you!

SELF EVALUATION

Stereotype Threat and Treatment Adherence: Building Trust in Healthcare Settings

1. What is stereotype threat?
 - a. A patient's concern that they will confirm a negative stereotype about their identity
 - b. A threat to provider authority
 - c. Fear of new medical technology
 - d. A providers' concern about a malpractice suit based on stereotypes
2. T/F - Healthcare Stereotype Threat (HCST) refers to the fear of medical procedures and is only experienced by healthcare providers in high-stress situations.
3. How might healthcare stereotype threat impact patients?
 - a. They may comply more with treatment plans and communicate more with providers
 - b. They may develop a higher pain tolerance and request less medication
 - c. They may request more frequent follow up appointments
 - d. They may distrust providers, avoid care, or not follow treatment plans
4. What strategies can help reduce stereotype threat in healthcare settings?
 - a. Shortening appointments
 - b. Giving neutral feedback without acknowledging identity
 - c. Creating identity-safe environments and providing wise feedback
 - d. Avoiding any mention of cultural background
5. Which of the following best represents Wise Feedback?
 - a. *"You've missed a few appointments, and that concerns me. I need you to do better if this is going to work."*
 - b. *"Let's be honest—this isn't easy. You've made progress, but we'll need to lower our expectations a bit."*
 - c. *"I know you're struggling. If you want to stop treatment for now, I understand—it's your choice."*
 - d. *"You've said your goal is to lower your blood pressure to stay active with your grandkids. I believe you can do it—you've already made changes to your diet and walk regularly. That said, we'll need to work on medication consistency to get there."*

Answer Key: 1. A, 2. F, 3. D, 4. C, 5. D

FACULTY

Robert J. 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.

Preventing Child Maltreatment Through Relational Care

Robert J. Gillespie, MD, MHPE, FAAP

Preventing Child Maltreatment Through Relational Care

R.J. Gillespie, MD, MHPE, FAAP
Pediatrician – The Children's Clinic – Portland, OR

Objectives

- Understand the key steps in child abuse prevention – and the role that all primary care providers play in child health.
- Recognize the importance of relational health in overall health, and how to integrate relational health into patient care.

The Bright Futures Motto

- Prevention Works
- Families Matter
- Health is Everyone's Business

The Pediatrician's Role in Preventing Child Maltreatment – AAP Clinical Report (August 2024)

Universal & Targeted Interventions

Assessing risk and protective factors: Including relational health in history taking.

Including relational health in anticipatory guidance.

After maltreatment has occurred, preventing future harm.

Socioeconomic support for families in need.

Utilizing resources outside the medical facility.



<https://developingchild.harvard.edu/resources/three-early-childhood-development-principles-improve-child-family-outcomes/#graphic-text>

The Common Thread: Social-Emotional Health

Social-emotional health refers to a child's ability to:

- Form secure relationships
 - Experience and regulate emotions
 - Explore and learn
- SE health is the child-centric interpretation of “early relational health”, which emphasizes the centrality of the caregiver relationship in appropriate SE development.

Why Focus on Early Relational Health?

- A child's developmental trajectory – both positive and negative – is dependent on their early relationships.
- Problems in early social, emotional, and behavioral development will predict early school failure...which predicts later school failure.
- Intervening early helps to prevent the need for later, and more expensive interventions – both in the educational system and the mental health system.
- According to parents, social-emotional health significantly contributes to Kindergarten success, but is also the area where parents need the most support.

Georgetown University Center for Child and Human Development, OHA Metrics & Scoring / HAKR Workgroups

Relational Health History

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-SA 4.0](#)

Attunement – “catching your baby’s vibe”

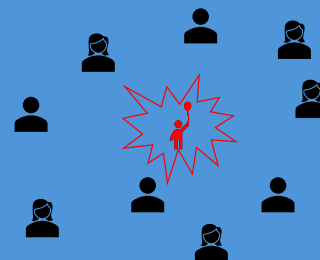


Robert Whitehead, CC BY 2.0 <https://commons.wikimedia.org/wiki/File:Robert_Whitehead_2.jpg>, via Wikimedia Commons

Scaffolding of Relationship Skills



Social Thinning & Stress Generation



The Relational Health History

- Conceptually, similar to other components of health care histories: past medical history, history of present illness, family history, social history, etc.
- Considers risk and protective factors
- Includes trauma (risk factors) from a general perspective, not just ACEs.
- Doesn't necessarily include a screening tool – history questions can be used instead.

Weaving together the pieces of RHH

- Past relational health history: what has happened to the patient / family / parents?
 - Past trauma history
 - History of relational strengths – positive and benevolent childhood experiences
- Present relational health history: what is happening to the patient / family now?
 - Peripartum mood disorders, depression, anxiety, SUD
 - Social Drivers of Health
 - IPV / dating violence
 - Strength of relationships in friend group, workmates, intimate relationships
- Future relational health history: what does the patient / family want to have happen?
 - Positive Childhood Experiences – what does the family want their child to experience? Do they need help with that?
 - Relational health promotion – psychoeducation about relational health.

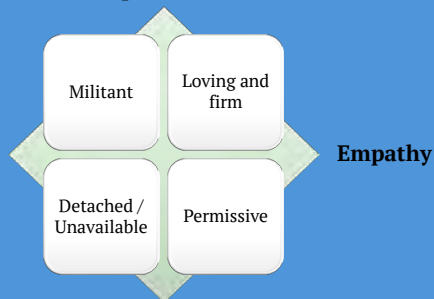
Potential Items to Implement: Pediatrics and Family Medicine

Subject Area	Easy	Medium	Advanced
Caregiver Trauma	Implement caregiver trauma surveillance questions	Combine with discipline intervention	Assessment Tool • ACEs & PCEs • IPV Screening
Caregiver Depression / Mental Health	Standard Assessment Tool • EPDS • PHQ2/PHQ9	• Add Substance Abuse questions (from SEEK) • Add diaper insecurity questions	Expand into other age groups – e.g., SEEK or add to other standardized tools
Social Drivers of Health	Hunger Vital Sign	Expanded core domains • Food • Transportation • Housing	Broader screening tool • WECARE • PRAPARE • SEEK • SWYC

Surveillance Questions to Assess Caregiver Trauma

- Can you tell me how you were raised? What do you want to repeat with your kids, and what do you want to do differently?
- Did anything scary or upsetting happen in your childhood? How do you think that affects your parenting now?
- Can you tell me a little bit about your childhood? How was it overall?
- What did you learn from your parents that you want to bring to your parenting experience? What do you want to do differently?

Expectations



Relational Health History in Adults

- SDoH – annual assessments
- Mental health assessments – annual depression screening, SUD screening (AUDIT / DAST)
- IPV screening tools (more common in OB/GYN and FM)
- When diagnosing mental health concerns: probe into trauma as a potential root cause:
 - Did anything scary or upsetting happen to you?
 - How do you think these experiences affect you now?

Relational Health in Anticipatory Guidance

Epidemic of Loneliness

Either feeling lonely or being unable to identify a social network...

Is the same risk to health and longevity as smoking 15 cigarettes a day...

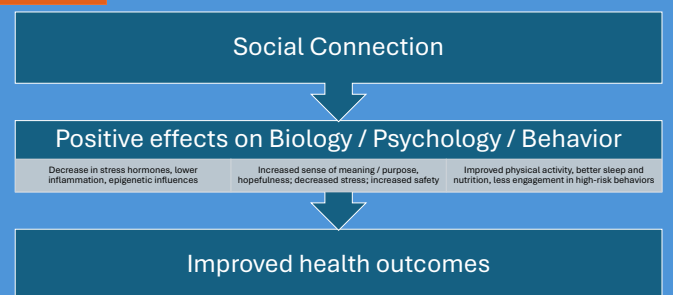


And is more predictive of early death than obesity, excessive drinking, or not getting enough exercise!

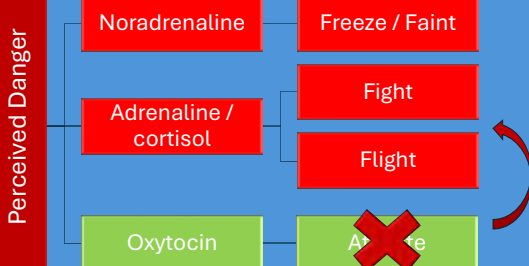
The Scope of the Problem

- 40% decrease in social engagement with friends (20 fewer hours per month) between 2003 and 2020.
- Only 16% of Americans report feeling very attached to their local community.
- Feeling strong social connections increases survival odds by 50%.

Mechanisms for Health Outcomes: Holt-Lundstad, 2021



Social Isolation and Stress Response



The Relationship as a “Vital Sign”



Parting Prescription for America



https://www.wivemurthy.com/_files/ugd/9322fa_6d33185c1dab47fa16f238f35b3b537.pdf

Instead of summing the suffering...

...we should be building the buffering!



Pillars of Stress Health: www.stress-health.org

- Sleep
- Nutrition
- Exercise
- Getting out in Nature
- Mindfulness
- Good Mental Health
- Supportive Relationships

From Anticipatory Guidance to Relational Health Intervention Opportunities: Peds & FM

Stress Buster / AG topic	Conversation prompt	Intervention
Sleep	How is it going creating a good bedtime routine?	Literacy-based sleep routine Bedtime songs Picture charts for older kids
Nutrition	What opportunities do you have to eat together as a family? What do you talk about?	Highs and lows or Roses and Thorns Three good things
Exercise / Getting out in Nature	What opportunities do you and your family have to move your bodies together?	Brainstorm activities that they can do together as a family. Consider providing resources for safe play environments.
Mindfulness	What do you do to keep calm and in-control when faced with a challenge?	Belly Breathing Square Breathing Fall-off breathing
Good Mental Health	How is your child progressing on learning how to regulate emotions?	Physical touch / loving touches
Supportive Relationships	What opportunities do you have to spend one-on-one time with your child?	Time-ins, or Special time

Transitioning AG to Relational Health: Adults

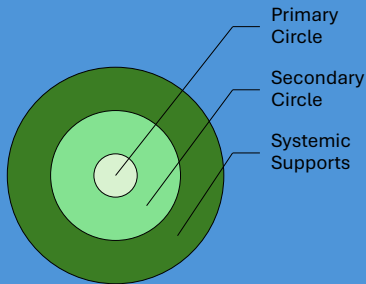
- Actively assessing patients' level of social connection to identify those who are at increased risk or already experiencing social disconnection and evaluate the level of necessary supports.
- Educating patients about the benefits of social connection and the risk factors for social disconnection as part of primary prevention.
- Leveraging interventions that provide psychosocial support to patients, including involving family or other caregivers in treatment, group therapies, and other evidence-based options.

Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community, 2025.

Screens as Relational Health Disruptors

- Social Media: >2 hours a day associated with double the risk of feeling social isolation compared to those using <30 minutes.
- Adolescent mental health crisis: 43% of teens with diagnosable mental health problem in 2021 (compared to <10% in 2010).
 - Social engagement associated with positive mental health
- Opportunity costs:
 - Displaces in-person engagement
 - Fragments attention
 - Decreased quality of 1:1 interactions
 - Decreased self-esteem

Circles of Support



Preventing Future Harm

Preventing Future Harm

- Child Protective Services: Differential versus forensic response
- Parent / caregiver skill-building – improving executive functioning, teaching positive parenting
- Mental Health & Social Services that work

Executive functioning – what is it?

“Mounting research from neuroscience and psychology tells us that there is a set of underlying core capabilities that adults use to manage life, work, and parenting effectively. These include, but are not limited to: **planning, focus, self-control, awareness, and flexibility**. To scientists, these capabilities fall under the umbrella of self-regulation and executive function.”

Caregiver trauma and Parenting Skills

- Parenting styles are at least partly inherited – if a caregiver experienced harsh parenting styles, they're more likely to use those same techniques.
 - Modeling of good parenting skills.
 - Tendency to “revert to what you know” when under stress.
- That said, when asked about their trauma history, most caregivers state that they want to do differently for their child.

How do we Promote Executive Functioning?

- Counseling positive parenting – helps parents plan for, and be flexible in, their interactions with their kids.
- Catching the caregiver doing well: adopting a strengths-based approach to anticipatory guidance and counseling helps improve feelings of self-efficacy.
- For example, telling a new mom that she's doing a good job improves feelings of self-efficacy that endures for several years!

What is Positive Parenting?

- Parent-child relationship that is “responsive to child's needs and feelings and combines warmth and thoughtful, firm limit setting consistently over time”
- Therefore, positive parenting is positive in its:
 - Intention from the parent / caregiver
 - Regard for the child
 - Outcome for the behavior
- Goal: 80% of interactions neutral / positive



Programs that support ERH

- Positive parenting / parent training
 - Triple P
 - Conscious Discipline
 - The Incredible Years
 - SafeCare
 - Chicago Parent Program
- Parenting / social support programs
 - Nurse home visitation programs (Nurse-Family Partnerships, Healthy Families)
 - Family Check-Up
 - Promoting First Relationships
 - Child First

Trauma-Specific and Trauma-Informed Therapies

- Attunement therapies for younger children
 - Child-parent psychotherapy (CPP)
 - Parent-child interactive therapy (PCIT)
 - Circle of Security
- Home visitation models to promote attachment
 - Attachment and biobehavioral catch-up (ABC)
- Therapies for addressing trauma
 - Trauma-focused cognitive behavioral therapy (TF-CBT)
 - Eye movement desensitization and reprocessing (EMDR)

Socioeconomic Supports for Families in Need

Social Determinants / Drivers of Health

“The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.”

World Health Organization



Reducing Sources of Stress: Screening for SDoH

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

Food Insecurity Screening: The Hunger Vital Sign

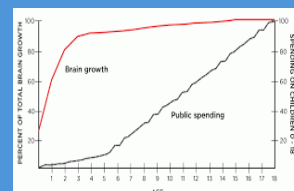
- Two question survey to address food insecurity:
 - In the last year, did you worry that your food would run out before you got money or Food Stamps to buy more?
 - In the last year, did the food you bought just not last and you didn't have money to get more?

FRAC / AAP Toolkit

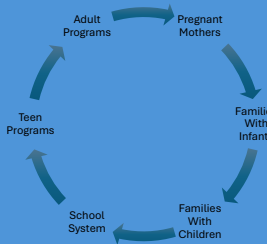


Utilizing Resources Outside the Medical Home

Spending to Brain Growth



Wheel Of Intervention



Find Communities that Promote Self-Regulation & Coping

Yoga
Meditation
Art
Play groups
Exercise groups / classes
Martial arts



Public Health / Community Interventions

- Nurse Family Partnerships and other home visiting programs
 - 2 home visits in the first year shown to reduce child abuse by 50%
- Community Referral Agencies
 - 211 Info, UniteUs, Aunt Bertha
 - Help Me Grow
- Early Intervention / Early Childhood Special Education
 - Parent coaching model to improve interactions between parent and child
 - Some states include family risks as qualifying diagnoses – Illinois uses maternal depression as a qualifying diagnosis for EI
- Mentoring programs (Big Brother / Big Sister Programs, Boys & Girls Clubs, etc.)
- Trauma-Informed Schools: major work being done in implementing trauma-informed discipline, resilience programs within school systems with great success.



<https://developingchild.harvard.edu/resources/three-early-childhood-development-principles-improve-child-family-outcomes/#graphic-text>

In Sum

- Focusing on relational health and reducing social stressors in our offices helps to reduce child abuse
- As medical providers, we need to reach beyond the walls of our offices!
- Health is EVERYONE'S business!

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SELF EVALUATION

Preventing Child Maltreatment Through Relational Care

1. T/F - In order to take an adequate Relational Health History, structured assessment tools must be used.
2. Which of the following are potential components of a relational health history that can be used in wellness visits in adult primary care?
 - a. Annual screening for social drivers of health
 - b. Periodic screening for depression or other mental health disorders
 - c. Screening for SUD using the AUDIT or DAST
 - d. Assessing for intimate partner violence or marital problems
 - e. All of the above
3. The lack of social connection is thought to lead to poor health outcomes through a variety of physiologic, psychologic and behavioral pathways. Which of the following is NOT a potential effect of social isolation?
 - a. An increase in stress hormone levels
 - b. A sense of hopefulness or purpose
 - c. Poor engagement in healthy behaviors like proper nutrition and regular exercise
 - d. Increased feelings of stress
 - e. Higher levels of inflammatory markers
4. Excessive screen use is a potential problem seen by all medical disciplines, and can affect health and wellness. Which of the following statements about screen usage is FALSE?
 - a. Excess screen time can decrease the frequency of embodied, in-person social interactions
 - b. Screen usage can fragment the attention span
 - c. Using a lot of social media has no effects on health outcomes
 - d. The quality of 1:1 interactions with others is diminished
 - e. Self-esteem is decreased by excess media usage
5. Which of the following statements about positive parenting is TRUE?
 - a. Positive parenting is about spoiling children or letting them have whatever they ask for.
 - b. Spanking children is harmless to their overall wellness, and can be part of a positive parenting model.
 - c. Positive parenting is about maintaining clear, firm boundaries with children while maintaining empathy and love.
 - d. Parents who experienced childhood trauma are naturally more adept at positive parenting.
 - e. Positive parenting requires parents to be inflexible in their responses to child behavior.

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

FACULTY

Neil Gokal, MD, FAAFP

Neil Gokal, MD, FAAFP is a family medicine physician and physician-leader based in Southern Nevada, with a focus on population health, quality outcomes, and medical education. He has served as the inaugural Associate Program Director of the Valley Health System Family Medicine Residency, the largest in the state, and holds academic appointments at Roseman University, UNLV School of Medicine, and Touro University Nevada. With a background in biomedical engineering and global health, Dr. Gokal also serves as Executive Chair of One World Surgery, providing care to underserved communities in the Dominican Republic and Honduras. He is a Fellow of the American Academy of Family Physicians and a recognized leader in physician wellness and professional advocacy.

You may contact Dr. Gokal with any questions or comments at Nilesh.Gokal@optum.com

An Evidence-Based Approach to Pain Management

Neil Gokal, MD, FAAFP

An Evidence-Based Approach to Pain Management

NEIL GOKAL, MD, FAAFP



Disclosures

- ▶ Photos used for patient scenarios are AI generated images of myself and are not intended to reflect anyone in particular

Objectives

- ▶ Explore the impact & prevalence of pain on global & national scale
- ▶ Review tools for pain assessment
- ▶ Navigate sources of pain for diagnostic acumen
- ▶ Delineate treatment options with shared decision making
- ▶ Understand and approach barriers and challenges

Ease the pain!



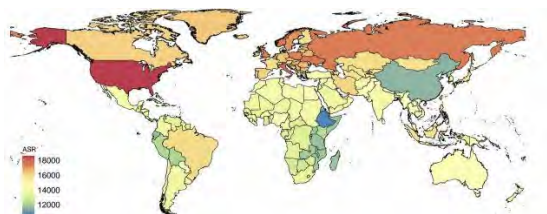
Chronic Pain (MG30.0)

"Pain is an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage.

It is multifactorial: biological, psychological and social factors contribute to the pain syndrome."

- International Association for the Study of Pain

Age Standardized Incidence Rates



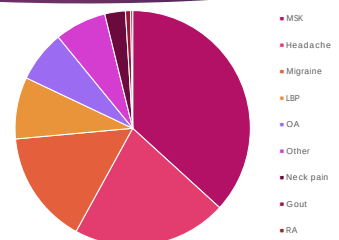
Global Health Data Exchange <https://ghdx.healthdata.org/>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11669129/#ref-101>

Global Prevalence

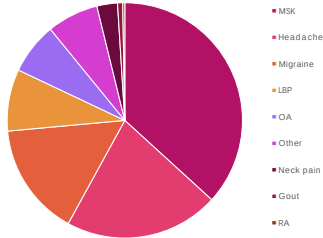
4,117,862,020 cases of pain globally

- Most Common Causes**
- Musculoskeletal
 - Headaches
 - Back Pain



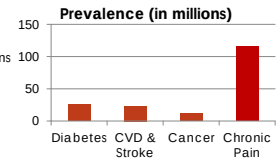
Global Prevalence

- Increase over last 30 years
- Higher rates in female
- TTH predominant global disorder
- LBP leading contributor to global disability
- High Socio-Economic Index regions reported higher pain burden



2019 NIH Data: Low Back Pain

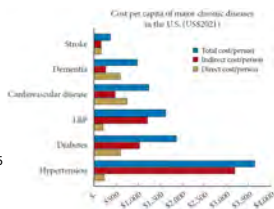
- 8.2% Americans with back pain
- 75% reported disability
- 60% reported mobility and work limitations
- 34% social limitations
- 16% self care limitations
- Leading contributor to missed work & physician visits



IOM (Institute of Medicine), 2011. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Washington, DC: The National Academies Press.

US Fiscal Impact >\$40 billion

- 5% of population accounts for 50% of healthcare expense
- Highest cost burden for LBP globally
- 149 million workdays lost annually
- 62.3% increase in lumbar fusions 2004-2015



Chang D, Lui A, Matsuyan A, Safaei MM, Aryan H, Ames C. Comparative Review of the Socioeconomic Burden of Lower Back Pain in the United States and Globally. *Neurospine*. 2024 Jun;21(2):487-501. doi: 10.14245/ns.2448372.186. Epub 2024 Jun 30. PMID: 38955526; PMCID: PMC11224735.

IASP

“Chronic pain [should] not be viewed as a symptom but rather treated as a disease.”

Scenario 1

▶ 43 yo Male s/p cervical laminectomy 4 days ago immobilized with a neck brace here to meet you for the first time not yet scheduled to see his surgeon c/o severe pain with movement and over the incision site limiting all ADLs

▶ Initial thoughts on treatment plan?



11

Scenario 2

▶ 33 yo Male presents after hospitalization for intoxication. He recently relocated from out of state and admits to struggling with maintaining a job and steady living environment. He is going to “try and stick it out” but may have to “go back home to mom and pops.” He is requesting “oxys” for headache from hitting his head on the pavement when he passed out as well as “xanny bars” that he uses for sleep.

▶ Initial thoughts on treatment plan?



12

Scenario 3

▶ 77 yo Male presents for a routine physical requesting a refill of hydrocodone that he occasionally uses for “back pain.”

▶ Initial thoughts on treatment plan?



13

Scenario 4

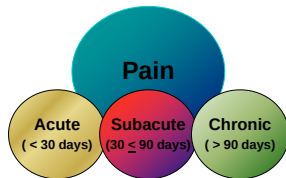
▶ A well known to you 38 yo female presents with generalized diffuse pain that occurs with movement and at rest without known triggers asking for help with pain because her hydrocodone 10mg TID is not helping anymore.

▶ Initial thoughts on treatment plan?

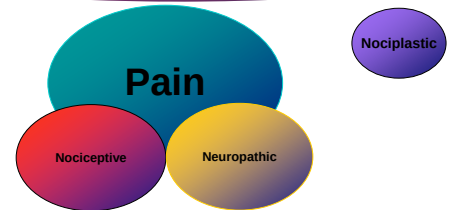


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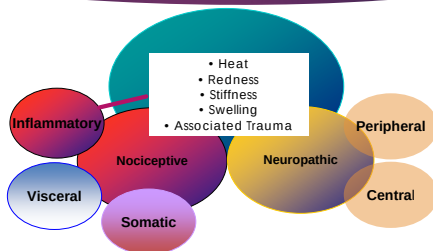
Evaluating Pain: Duration



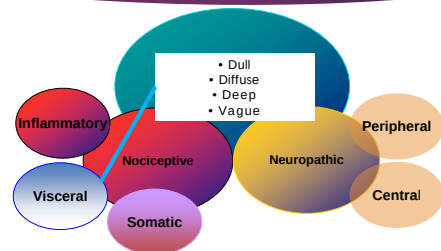
Evaluating Pain: Source



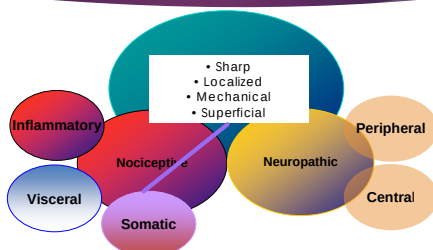
Evaluating Pain: Source



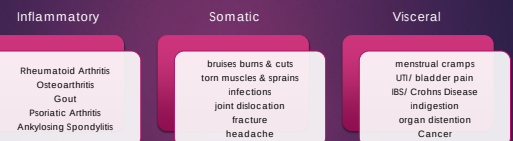
Evaluating Pain: Source



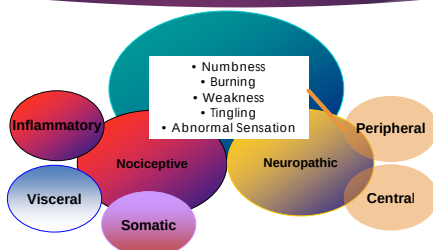
Evaluating Pain: Source



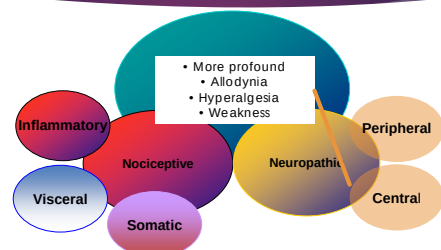
Nociceptive Pain



Evaluating Pain: Source



Evaluating Pain: Source



Neuropathic Pain

Central

Multiple Sclerosis
Parkinsons
CVA

Peripheral

Trigeminal Neuralgia
Postherpetic Neuralgia
Diabetic neuropathy
Sciatica

Treating Pain

Class	Neuropathic	
Group	Peripheral	Central
Goal	- Reduce inflammation - Inhibit nociceptor activation - Prevent sensitization	- Alter neurotransmission - Modulate excitatory pathways - Enhance inhibitory systems
Pharmacologic Agents	- NSAID - Acetaminophen - Local Anesthetics - Corticosteroids	- Opioids - Gabapentinoids - TCA - SNRI - NMDA antagonist - Cannabinoids

Treating Pain

Class	Nociceptive	
Group	Acute	Chronic
Goal	- Pain resolution - Resolve underlying cause	- Pain control - Function preservation and restoration
Non-pharmacologic Intervention	- Massage Therapy - Acupressure - Joint Manipulation - Transcutaneous Electrical Nerve Stimulation - Exercise - Laser therapy - Immobilization - Heat/cold - Elevation	- Physical Therapy - Cognitive Behavioral Therapy - Rehabilitation exercises - Integrative therapies - Acupuncture - Yoga - Spinal Manipulation

Treating Pain

Class	Nociceptive	
Group	Acute	Chronic
Goal	- Pain resolution - Resolve underlying cause	- Pain control - Function preservation and restoration
Pharmacologic Agents	- NSAID (oral or topical) - Topical menthol - Acetaminophen - Nerve blocks - Ketamine - Corticosteroids - Muscle Relaxants	- Non-opioid analgesics - Opioids - TCA - SNRI

NSAIDS

Inhibit COX enzymes

- Nonselective:**
 - COX-1 (GI protection, platelet aggregation)
 - COX-2 (inflammatory response)
- Selective:**
 - COX-2

More effective than acetaminophen

Pain relief comparable to opioid

NSAIDS

Medication	Route	Max Daily Dose	Caution
Ibuprofen	PO	1200 mg/day	Nephrotoxic GI CVD
Naproxen	PO	1000 mg/day	
Diclofenac	PO	150 mg/day	
Ketorolac	PO, IM, IV	40 mg/day PO 120 mg/day IM/IV	
Meloxicam	PO	15 mg/day	Nephrotoxic CVD
Celecoxib	PO	7.5 mg/day 200 mg/day	

ASPIRIN



Low dose (81 mg): COX-1



High dose (1000 mg): COX-1 + COX-2



Caution in patients with asthma

Acetaminophen

- Analgesic + Antipyretic properties
- No anti-inflammatory effect
- Low cost
- Caution with safety
- Consider as combination

Route	Max Daily Dose	Caution
PO, Rectal, IV*	4000 mg/day**	Hepatotoxicity

*IV offers no different analgesic advantage vs PO
**lower with comorbidities

Topical Analgesics

- Local inhibition of COX receptors
- Cream vs Spray vs Patch
- Up to 50% pain relief vs placebo
- 1st line rx for acute non-low back MSK pain

Topical Analgesics

Medication	Application	Cost
Diclofenac 1%	2-4 g QID	\$15 (Voltaren)
Diclofenac 3%		\$50 tube of 100g
Camphor, menthol, clove	.5 g QID	\$8
Methyl salicylate/camphor/menthol	Patch	\$15
	Cream	Varies (Salonpas, Bengay, Bufferin, Icy Hot)
Salicylate	Cream	\$12 Aspercreme
Menthol	Spray/Cream	\$15 Biofreeze

Treating Multimodal Pain

- Combination therapy
- Non-pharmacological interventions
 - Cognitive-behavioral therapy
 - Physical therapy
 - Patient education
- Integrative approaches
 - Aqua therapy
 - Acupuncture
 - Yoga
 - Tai Chi

Cannabinoids

FDA Approved formulations for refractory condition

Marinol (dronabinol)	Cesamet (nabixone)	Epidiolex (cannabidiol)	Syndros (dronabinol)
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NO consensus on efficacy/safety

Not effective for acute pain

meta-analysis in patients with mixed chronic pain from RA, fibromyalgia, & cancer found a "significant reduction" in pain, improved sleep & quality of life

*Koppel BS, Brust JC, Fife T, et al. Systematic review: efficacy and safety of medical marijuana in selected neurologic disorders: report of the Guideline Development Subcommittee of the American Academy of Neurology. Neurology. 2014;82(17):1556-1563.

Adverse Effects

- Addiction-adolescents
- Altered brain development
- Chronic bronchitis
- Depression and anxiety
- Diminished lifetime achievement
- Motor vehicle crashes
- Psychoses and exacerbation of schizophrenia

AAFP Recommendations: Level A

Level A = consistent, good-quality patient-oriented evidence

Practice Recommendation	Basis
Topical NSAIDs are safe & effective for treating acute pain	Systematic review, consistent randomized controlled trials, evidence-based guidelines
NSAIDs, acetaminophen, or a combination is an effective initial treatment approach for acute pain syndromes	Systematic reviews, consistent randomized controlled trials, clinical guidelines

AAFP Recommendations: Level B

Level B = inconsistent or limited-quality patient-oriented evidence

Practice Recommendation	Basis
Muscle relaxants are effective adjunctive medications for acute low back pain and neck pain	Systematic review, multiple randomized controlled trials
Gabapentinoids and antidepressant medications used to treat chronic neuropathic pain should not be used to treat acute pain	Meta-analysis (gabapentinoids), systematic review (gabapentinoids and antidepressants), mixed results from high-quality studies (gabapentinoids)

AAFP Recommendations: Level C

Level C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series

Practice Recommendation	Basis
Cannabinoids used to treat chronic neuropathic pain should not be used to treat acute pain	Mixed results from low-quality studies
Opioids should be used for no more than three days, only for severe or refractory acute pain, and only in combination with other medications	Expert consensus opinion, clinical guidelines

Assessing Pain

Tool	Description	Source
Brief Pain Inventory (BPI)	Questionnaire to evaluate pain severity & interference of daily function	Charles S Cleeland, PhD MD Anderson Cancer Center
Pain Enjoyment of Life and General Activity (PEG) Scale	3 question average to characterize pain severity & gauge interference	Krebs EE, Lorenz KA, Blair MJ, et al.
Numeric Pain Rating Scale	Measures pain intensity over 24 hours with visual or verbal cue	Dr Ronald Melzack and Dr Warrant Torgerson, McGill University
Verbal Rating Scale	Qualitative method for assessing pain intensity	Collaborative effort
Wong Baker	Cartoon faces to correlate pain intensity	Donna Wong and Connie Baker
McGill Pain Questionnaire (MPQ)	Numerical intensity scale to monitor pain over time	Dr Ronald Melzack, McGill University

Assessing Pain

PEG-3
PEG Scale Assessing Pain Intensity and Interference (Pain, Enjoyment, General Activity)

1. What number best describes your pain or aches in the past week?

0 1 2 3 4 5 6 7 8 9 10
No Pain Pain as bad as you can imagine

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

3. What number best describes how, during the past week, pain has interfered with your general activity?

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

No Pain 0 1 2 3 4 5 6 7 8 9 10 Moderate Pain Worst Pain

0 2 4 6 8 10

Resources for Practice

Controlled Substance Agreement

- for patient and clinician

Evaluate risks *prior* to initiation:

[Screener & Opioid Assessment for Patients with Pain \(SOAPP-R\)](#)

- 24 item questionnaire

[Opioid Risk Tool \(ORT\)](#)

- 9 item questionnaire

[Diagnosis, Intractability, Risk, Efficacy Score \(DIRE\)](#)

Monitor for misuse *during* treatment:

Current opioid misuse measure (COMM)

- 17 item patient self-assessment

Scenario 1

►43 yo Male s/p cervical laminectomy 4 days ago immobilized with a neck brace here to meet you for the first time not yet scheduled to see his surgeon c/o severe pain with movement and over the incision site limiting all ADLs

- Recognize appropriate treatment for nociceptive pain



42

Scenario 2

►33 yo Male presents after hospitalization for intoxication. He recently relocated from out of state and admits to struggling with maintaining a job and steady living environment. He is going to "try and stick it out" but may have to "go back home to mom and pops." He is requesting "oxys" for headache from hitting his head on the pavement when he passed out as well as "xanny bars" that he uses for sleep.

- Harms vs Benefits
- Appropriate Screening



43

Scenario 3

►77 yo Male presents for a routine physical requesting a refill of hydrocodone that he occasionally uses for "back pain."

- Appropriate evaluation and treatment
- Accuracy of prescribing



44

Scenario 4

►38 yo female presents with generalized diffuse pain that occurs with movement and at rest without known triggers asking for help with pain because her hydrocodone 10mg TID is not helping anymore.

- Big Picture
- Evaluate History



45

Key Points



"Primum non nocere"



Individual expectations + shared decisions



Assess & monitor



Don't skip the "basics"

46

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THANK YOU!

Right is right even if no
one is doing it.
Wrong is wrong even if
everyone is doing it.
- Saint Augustine

SELF EVALUATION

An Evidence-Based Approach to Pain Management

1. On a global scale, the most common underlying cause for pain is:
 - a. Psychological
 - b. Neurological
 - c. Chemical
 - d. Musculoskeletal
2. A patient presents with pain after slamming a door on her index finger. This type of pain is most likely:
 - a. Neuropathic
 - b. Nociplastic
 - c. Nociceptive
 - d. Psychosomatic
3. This condition represents a type of nociplastic pain:
 - a. Femoral neck fracture
 - b. Fibromyalgia
 - c. First degree burn
 - d. Herpes Zoster
4. Unlike nonselective NSAIDS, selective NSAIDS do not carry risk of:
 - a. Cardiovascular disease
 - b. Nephrotoxicity
 - c. GI damage
 - d. Hepatotoxicity
5. While often a safe treatment for pain, acetaminophen does not provide this effect:
 - a. Analgesia
 - b. Anti-pyretic
 - c. Anti-inflammatory

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

Cross Cultural Communication In Healthcare

Neil Gokal, MD, FAAFP

Cross Cultural Communication In Healthcare



o Dr Neil Gokal, MD, FAAFP

DISCLOSURES

- None

OBJECTIVES

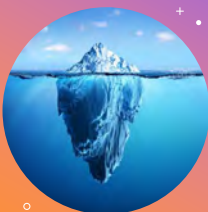
- Understand social drivers that impact health outcomes
- Analyze perspectives of social drivers
- Recognize current initiatives and how this may impact your clinical practice
- Develop a better approach for all patient populations

WHICH OF THE FOLLOWING EXHIBITS NON COMPLIANCE?



- A. A patient with blindness refusing to take medication
- B. A single parent with uncontrolled Diabetes Hypertension and Obesity
- C. A Nigerian patient refuses measles vaccine
- D. A Vietnamese speaking patient refuses to use an interpreter line

PERSPECTIVE



"If you're wondering what I mean by "miracle", it's simple: a miracle is a shift in perspective from fear to love."

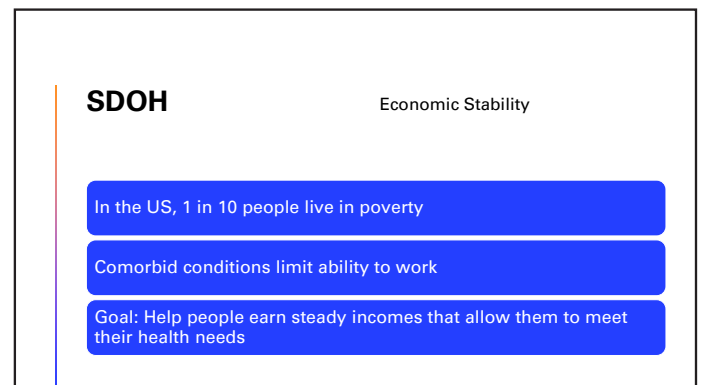
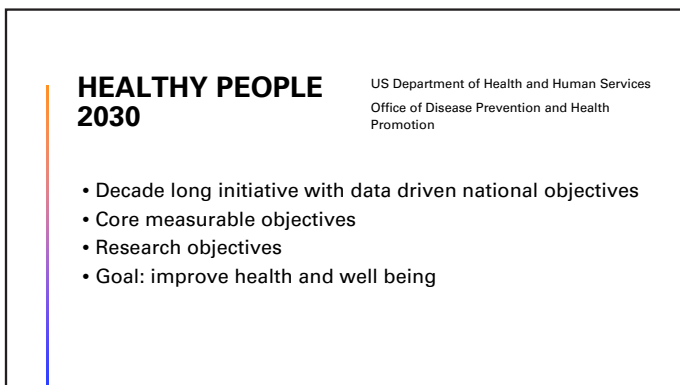
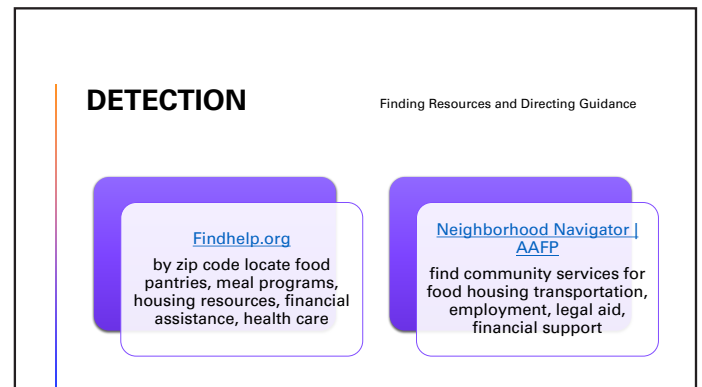
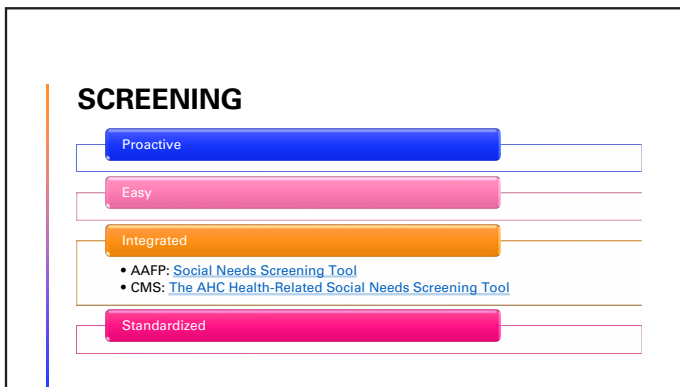
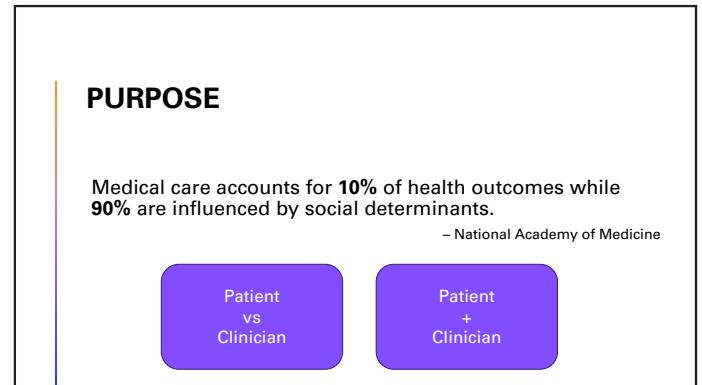
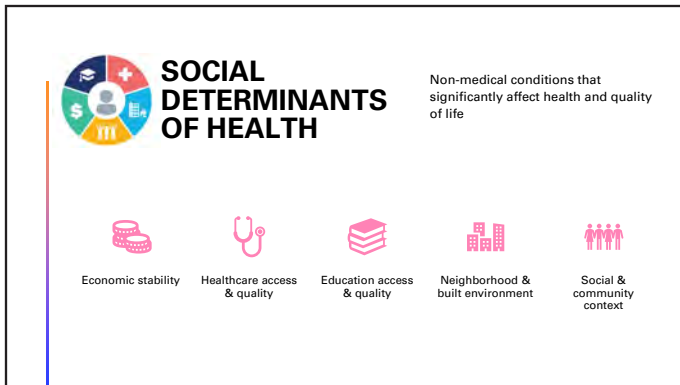
– Gabrielle Bernstein

BARRIERS



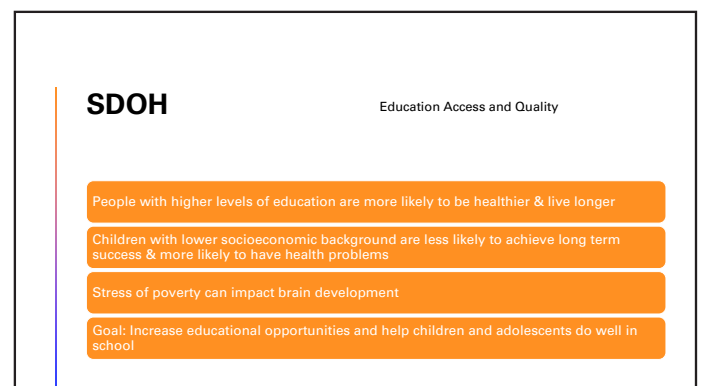
Exploring the patient journey





ECONOMIC STABILITY

Objective	Current	Baseline	Target
Reduce proportion of persons living in poverty	11.1%	11.8%	8%
Increase Employment	71.5%	70.6%	75%
Increase proportion of children living with at least 1 parent in FT work	79.1%	77.9%	85.1%
Reduce the proportion of adolescents and young adults who are neither enrolled in school nor working	10.6%	11.5%	11.2%
Reduce proportion of families that spend >30% of income on housing	35%	34.6%	25.5%
Eliminate low food security in children	1.03%	0.59%	0%
Reduce work related injuries resulting in missed work days	73.2%	89.4%	63.8%



EDUCATION ACCESS AND QUALITY

Objective	Current	Baseline	Target
Increase Proportion of HS students who graduate in 4 years	86.6%	84.1%	90.7%
Increase the proportion of HS graduates enrolled in college	62%	69.1%	73.7%
Increase the proportion of students with disabilities who spend at least 80 percent of their time in regular education programs	67.7%	63.5%	73.3%
Increase the proportion of 4th grade students whose mathematics skills are at or above the proficient achievement level for their grade	39.5%	40.2%	43.1%
Increase the proportion of 4th grade students whose reading skills are at or above the proficient achievement level for their grade	31.1%	36.6%	41.5%
Increase the proportion of children who are developmentally ready for school			

SDOH

Health Care Access and Quality

About 1 in 10 people in the United States don't have health coverage

Lack of coverage, lack of access, lack of awareness leads to lack of care

Goal: help people get timely, high-quality health care services

HEALTH CARE ACCESS AND QUALITY

Objective	Current	Baseline	Target
Reduce ED visits where wait time to see a clinician exceeds the recommended timeframe	20.6%	19.2%	12%
Increase the proportion of adults who receive appropriate evidence-based clinical preventive services	5.3%	8.5%	11.5%
Increase the proportion of adolescents who speak privately with a physician or other health care provider during a preventive medical visit	39.8%	38.4%	43.3%
Increase the proportion of adolescents who received a preventive health care visit in the past year	69.6%	78.7%	82.6%
Increase the proportion of adults who receive a colorectal cancer screening based on the most recent guidelines	63.5%	63.5%	72.8%

SDOH

Neighborhood and Built Environment

Community Risks: rates of violence, unsafe air or water

Lower socioeconomic groups more likely to be at risk

Goal: Create neighborhoods and environments that promote health and safety.

NEIGHBORHOOD AND BUILT ENVIRONMENT

Objective	Current	Baseline	Target
Increase the proportion of adults with broadband access to the Internet	41.5%	55.9%	60.8%
Reduce the rate of minor and young adult perpetration of violent crimes (per/100k)	190.6	249	199.2
Increase the proportion of persons served by community water systems who receive a supply of drinking water that meets the regulations of the Safe Drinking Water Act	92.2%	90.2%	92.1%
Reduce asthma deaths (per/million)	9.6	9.4	8.9
Increase the proportion of smoke-free homes	90%	86.5%	92.9%
Reduce the proportion of adults who have hearing loss due to noise exposure	97.8	97.8	79
Reduce hospitalizations for chronic obstructive pulmonary disease (COPD)			

SDOH

Social and Community Context

Uncontrollable Challenges: unsafe neighborhoods, discrimination can negatively impact health and safety

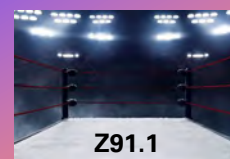
Lack of psychosocial support can negatively impact health

Goal: Increase social and community support

SOCIAL AND COMMUNITY CONTEXT

Objective	Current	Baseline	Target
Reduce the proportion of children who have ever experienced a parent or guardian who has served time in jail or prison	6%	7.6%	5.2%
Increase the proportion of children and adolescents who communicate positively with their parents	61.9%	68.6%	73.1%
Increase proportion of adults who use information technology (IT) to track health care data or communicate with providers	92.1%	80%	87.3%
Reduce the proportion of persons with intellectual and developmental disabilities enrolled in publicly funded, long-term services and supports (LTSS) who live in congregate care residences with 7 or more people	20.5%	22.7%	11.5%
Increase the health literacy of the population			

NON-COMPLIANCE VS SOCIAL DETERMINANTS



WHICH OF THE FOLLOWING EXHIBITS NON COMPLIANCE?



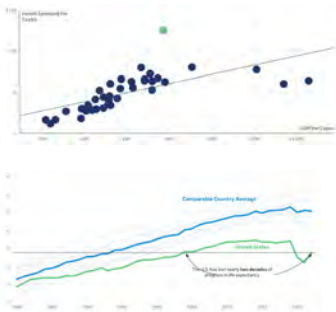
- A. A patient with blindness refusing to take medication
- B. A single parent with uncontrolled Diabetes Hypertension and Obesity
- C. A Nigerian patient refuses measles vaccine
- D. A Vietnamese speaking patient refuses to use an interpreter line

WHICH OF THE FOLLOWING EXHIBITS A SOCIAL BARRIER?



- A. A patient with blindness fearful of taking medication that she cannot see
- B. A single parent with a full time job struggling to care for his two children and support his household
- C. A patient with cultural experiences that create fear and confusion
- D. A patient fearful to be misguided by not speaking to someone in words she understands

US TRENDS



- Double the expenditure
- Lowest life expectancy
- Worse on care outcomes

health behaviors & outcomes of a broad **group** of individuals including the distribution of such outcomes affected by the **contextual factors** within the group

POPULATION HEALTH

POPULATION HEALTH PRINCIPLES OF IMPROVEMENT

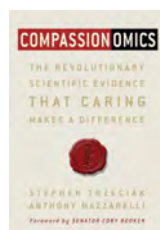


No individual represents a group.
No group defines an individual.

NAVIGATING DIFFERENCES

KINDNESS

is always an option,
always a choice,
and always free.

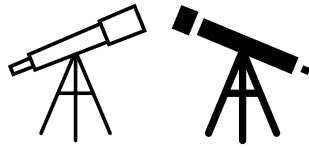


If you have a brain,
you have a bias



FIRST GLANCE & LASTING IMPRESSIONS

- Quick fix
- Chemical life
- Value vs Cost

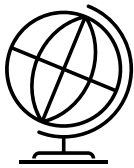


SOCIETAL IMPACT



- 2016 Closure of 269 Walmart Stores
- 2023 Teacher Rally in Urban City
- 2025 Accidental Drowning at Community Pool

- 350-430 Languages
- 1500 Race & Ethnicity groups
- > 57 Religions
- 50 million immigrants



"THE UNITED STATES GREW SIGNIFICANTLY MORE DIVERSE OVER THE PAST DECADE, AND THE NUMBER OF PEOPLE WHO SAID THEY WERE MORE THAN ONE RACE MORE THAN DOUBLED"

INTERPRETER SERVICES: A NEED



"Overconfidence in one's language abilities can lead to serious errors and substandard care."

- >25 million Americans speak English less than very well
- >60 million Americans speak a language other than English at home
- Conduit for discussion and a cultural liaison

Yet, not always employed



INTERPRETER SERVICES: BENEFITS

- Increases patient satisfaction
- Improves adherence & outcomes
- Reduces adverse events
- Reduces errors in communication
- Cultural clarity beyond language
- Lowers malpractice risk
- Shorter LOS in hospital
- Reduced 30 day readmission rate
- Title VI Civil Rights Act

INTERPRETER SERVICES- TIPS

- Direct eye contact & speech towards the patient
- Allow additional time
- Ask one question at a time
- Speak slowly not loudly
- Use first person ("I" statements)
- Employ teach back
- Limit key points to 3 or less



COMMUNICATION STYLES

Tone, volume, and speed	Eye contact	Pauses and Silence
Facial Expression	Emotional expressiveness	Self Disclosure
Formality	Directness	Context

ARTHUR KLEINMAN'S 8 QUESTIONS

An explanatory model to enhance culturally competent patient centered care

Arthur Kleinman's Eight Questions

I know different people have different ways of understanding illness—please help me understand how you see things.

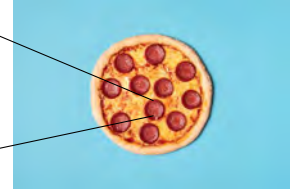
- 1 What do you call your problem? What name does it have?
- 2 What do you think caused your problem?
- 3 Why do you think it started when it did?
- 4 What does your sickness do to you? How does it work?
- 5 How severe is it? Will it have a short or long course?
- 6 What do you fear most about your disorder?
- 7 What are the chief problems that your sickness has caused for you?
- 8 What kind of treatment do you think you should receive? What are the most important results you hope to receive from treatment?

"If you have a brain, you have a bias."



IMPLICIT BIAS

"Life is about perspective and how you look at something... ultimately, you have to zoom out."
— Whitney Wolfe Herd



IMPLICIT BIAS

ACTIVITY

- Think of a number between 1 and 10.
- Add 2.
- Double the number.
- Subtract your original number.
- Add 8.
- Subtract your original number.
- Divide by 3.
- Find the corresponding letter of the alphabet (1=A, 2=B, 3=C, etc.).
- Think of a country that starts with that letter.
- Think of an animal that starts with last letter of the country.
- Think of a fruit that starts with the last letter of the animal.

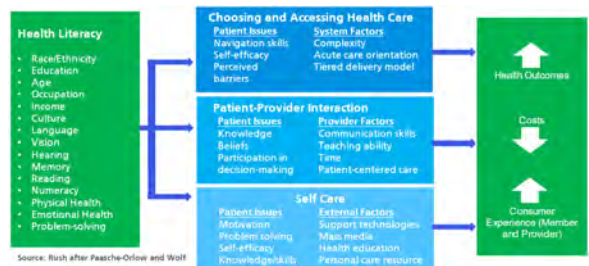
Denmark Kangaroo Orange



Countries that start with D	Animals that start with K	Fruits that start with O
Denmark	Kangaroo	Orange
Djibouti	Komodo Dragon	Olive
Dominica	Kitten	Okra
Dominican Republic	Koala	
	Koi	



ROADMAP



CONNECTING THE DOTS

- Discover Barriers
- Make Connections
- Maintain Curiosity
- Seek Positive Intent
- Employ Growth Mindset



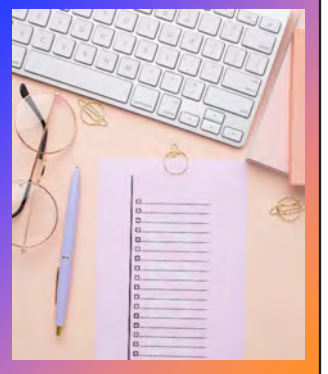
DOCUMENTATION

- Improves care coordination
- Quantifies the needs of a population
- Supports advocacy



DOCUMENTATION

- Z55-65 codes
 - persons with potential health hazards related to socioeconomic & psychosocial circumstances
- Increases visit complexity
 - level 4 (99204/99214)



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“Do your best until you know better.
When you know better, do better.”
Wanda Sykes

 Neil Gokal
 therealdrneil
 drNEIL702
 [Linkedin.com/in/neilgokal](https://www.linkedin.com/in/neilgokal)

Thank you

SELF EVALUATION

Cross Cultural Communication In Healthcare

1. Social determinants of health are _____ conditions that significantly affect health and quality of life
 - a. Medical
 - b. Non-clinical
 - c. Obvious
 - d. Illegal
2. Interpreter services have the following benefits
 - a. Improved care outcomes
 - b. Reduced malpractice
 - c. Lower hospitalizations
 - d. All of the above
3. The 2021 outpatient office E/M code revisions include SDOH as part of medical decision making to _____ visit complexity
 - a. Avoid
 - b. Increase
 - c. Decrease
 - d. Limit
4. T/F - Arthur Kleinman's explanatory model includes the client's beliefs about their illness and the social meaning they attach to their disorder.
5. Health behaviors & outcomes of a broad group of individuals including the distribution of such outcomes affected by the contextual factors within the group is a concept known as:
 - a. Migration pattern health
 - b. Health literacy
 - c. Population Health
 - d. Social Determinants of Health

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

FACULTY

Adam 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.

Ethical Tensions at the End of Life

Adam Marks, MD, MPH, FAAHPM



Disclosure

I have no financial conflicts of interest to disclose

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 Case #1

- ▶ You are caring for an 87-year-old woman, admitted with worsening heart failure
 - ▶ During admission, she develops kidney failure which worsens despite the efforts of the medical team
- ▶ She remains cognitively intact, though is very fatigued and often asks (though not always) that the medical team discuss details of her plan of care with her children rather than herself

Ethics Case #1

- ▶ Given her poor heart function, she is deemed to be a poor candidate for dialysis
 - ▶ Medical team discusses this with the patient's children, as well as her overall poor prognosis (estimated at weeks-months).
- ▶ Children ask that this information be withheld from the patient, citing a fear that this would cause her distress and **"we don't want her to lose hope"**

Ethics of Truth Telling

American Medical Association (AMA) code of ethics, 1847:

"The life of a sick person can be shortened, not only the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits."

Ethics of Truth Telling

- ▶ 1961
 - ▶ 90% of providers preferred to not disclose cancer diagnoses to their adult patients as the knowledge was felt to be overly distressing to patients and families
- ▶ 1979
 - ▶ 97% of physicians preferred disclosing cancer diagnoses to their adult patients

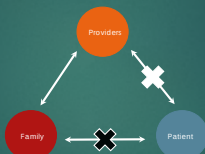
JAMA 1961; 175: 1120-1128
JAMA 1979; 241 (9): 897-900

Current AMA Code of Ethics

"The patient has the right to receive information from physicians and to discuss the benefits, risks, and costs of appropriate treatment alternatives."



Truth Telling in Serious Illness



Ethics of Truth Telling

- ▶ Ethical imperative for truth telling stems from several concepts
 - ▶ **Autonomy**/Informed consent
 - ▶ Lesser importance when the individual lacks capacity (dementia, children, etc.)



Ethics of Truth Telling

- ▶ Therapeutic relationship building/Trust/Dignity
 - ▶ Based on critically important with vulnerable populations, when developing a sense of trust is important for many aspects of care (**Beneficence**)
 - ▶ Principle of **Non-maleficence** comes into play, when truth-telling causes harm – raised in other situations



Ethics of Truth Telling

- ▶ Reasons for not talking to loved ones about death
 - ▶ Lack of opportunity to discuss death (sudden onset, patient too ill)
 - ▶ Patient did not want talk about death/avoided the conversation
 - ▶ Desire to protect loved one from bad news
 - ▶ Not confident in how to talk to loved one about bad news
 - ▶ Fear of taking away hope

Truth Telling: Therapeutic Value

- ▶ Deception even by omission leads to a separation between involved parties
 - ▶ Can foster sense of isolation and alienation – components of existential suffering



Responding to a Request to Withhold Information

- ▶ Understand the medical, cultural, and psychosocial aspects of the patient's care
 - ▶ Includes intra-family dynamics and team-family dynamics
- ▶ If a request has been made to withhold information, who has made it and why
- ▶ What the patient has already been told and what their response has been
- ▶ What do we think the patient/family understands
- ▶ Who knows family best; how to best approach

Meeting With The Family

- ▶ Family can be a common barrier to timely and truthful disclosure to patients
 - ▶ Often beneficial to meet with family away from the patient to lessen stress on family and create a safe space for honest communication
- ▶ Introductions: name, reason for meeting, role in patient's care. Set expectations:
 - ▶ "Something you should know about me is that I will always be straightforward with you and tell you the truth as best I know it."

Rosenberg et al JAMA Peds 2016 170(12) 1216-1223

Meeting With The Family (cont.)

- ▶ Explore understanding of illness, prognosis, expected trajectory
 - ▶ "What do you think your loved one understands about their disease?"
 - ▶ "What do you think they are most worried about?"
 - ▶ "Have they been asking any questions about their disease? How have you responded?"

Rosenberg et al JAMA Peds 2016 170(12) 1216-1223

Meeting With The Family (cont.)

- ▶ Talking with family about talking with the patient:
 - ▶ "Some people try to protect their loved by not asking about or wanting to talk about the seriousness of their illness. Is that something [the patient] might do?"
 - ▶ "Our goal is to help [the patient] have the best life possible while they have it. Sometimes that means having the opportunity to talk about hopes, needs and worries. What would it be like to share that with [the patient]?"

Rosenberg et al JAMA Peds 2016 170(12) 1216-1223

Meeting With The Patient

- ▶ Meet with the patient away from the family to assess preferences for communication and decision making
 - ▶ "How do you like to receive information about your illness and treatments? Do you like to receive all the details yourself?"
 - ▶ "How do you like to make decisions about your health care? By yourself do others help you with decision making?"
 - ▶ If patient affirms a desire to have information withheld, honor this
 - ▶ "If at any time you wish to receive this information yourself, please ask"

Addressing a Request to Withhold Information

- ▶ Points to focus on:
 - ▶ Maintaining an open and trusting relationship with both families and patients is vital for continued therapeutic relationship
 - ▶ Validation of family role as caregivers who know their child best
 - ▶ Avoiding judgmental language but being honest about concerns for truth telling

Dementia and Truth Telling

- ▶ Concept of "therapeutic fibbing" or "loving deception"
 - ▶ When cognitive impairment leads to a level where one cannot absorb or process information well enough to understand it, this can provide a means to avoid upsetting people with dementia in ways that serve no purpose
- ▶ Controversial
 - ▶ Based on beneficence/non-maleficence rather than convenience

Cassey et al Dementia 17(23) 2019 17-23

Dementia and Truth-Telling

- ▶ Therapeutic Fibbing
 - ▶ Calls first for non-deception; examine the emotion behind the statement and attend to that need when possible
 - ▶ Accept different realities
 - ▶ Explore alternatives
 - ▶ Distraction techniques
 - ▶ "Bending" the truth
 - ▶ Lies as a last resort

Dementia and Truth Telling

- ▶ For clinicians
 - ▶ Involving family members and caregivers in an empathetic discussion regarding responses to persistent questions/requests
 - ▶ Employing strategies that emphasize beneficence/non-maleficence as a focus
 - ▶ Ensuring consistency across care providers

Ethics Case #1 (resolution)

- ▶ Palliative care team met with the family
 - ▶ Expressed concern for losing hope with information
 - ▶ Cited past examples of depression
- ▶ Meeting with patient
 - ▶ Expressed a desire for the "big picture" even if distress
 - ▶ "I'm not afraid to die; I just want to know"
- ▶ Facilitated a family meeting, where the limited prognosis was expressed to patient. She expressed appreciation, and a desire to discharge home with hospice.

Ethical Case #2

- ▶ 67-year-old man with metastatic renal cell carcinoma is admitted to the hospital after a fall results in a pathologic fracture of the right femur; hospital course is complicated by a multifocal pneumonia and delirium
- ▶ As a result of previous advance care planning discussions, patient has an existing out of hospital DNR order which family re-affirms at time of admission.
- ▶ Over 48 hours, he worsens despite aggressive care and appears to be approaching the end of his life.
 - ▶ After much discussion, the family makes the decision to to transition to a comfort-focused plan of care to allow a natural death
 - ▶ Includes morphine for pain and dyspnea

Ethical Case #2

- ▶ Overnight, patient appears to be in great distress related to his known fracture
- ▶ Overnight nurse refuses to administer morphine given his respiratory status
 - ▶ Family very distressed by patient's apparent suffering as he approaches the end-of life



Principle of Double Effect

- ▶ States that clinicians can institute a therapy that may cause a bad effect if the intention is to provide a good effect
 - ▶ The bad effect can be foreseen, tolerated and permitted but it must not be intended
 - ▶ The good effect must outweigh the bad effect
 - ▶ The bad effect must not be a means to the good effect (i.e. I intend to kill this patient, so they no longer feel pain). If the good effect were the direct causal result of the bad effect, the agent would intend the bad effect in pursuit of the good effect.
- ▶ Often cited in end-of-life care, when aggressive symptom control risks shortening a life

Principle of Double Effect

- ▶ At its heart the idea that **intentions matter**
 - ▶ **Morality of the act is governed (in part) by the intended effect**
 - ▶ Thus, the same action in the same patient can be either be ethically permissible or not depending on the intention of the actor
 - ▶ True in other medical situations (surgery, chemotherapy, etc)



Case #2 Resolution

- ▶ In conjunction with RN supervisor, bedside nursing was provided education about appropriate EOL care
- ▶ Primary RN continues to express concern, and eventually was replaced with a nurse with more experience with EOL care
- ▶ Patient was medicated with parental morphine for pain/ breathlessness, with noted improvement in non-verbal signs of distress
- ▶ He died later that day

Case #3

- ▶ 89-year-old female with advanced Alzheimer's Dementia (FAST 7B)
- ▶ Admitted to a hospice facility after developing dysphagia with recurrent aspiration pneumonia.
- ▶ Upon admission, family presents medical director with an advance directive
 - ▶ Completed 5 years prior
 - ▶ Asked that when dementia progress to "advanced stage" that assisted feedings be discontinued
- ▶ Patient is bedbound, non-verbal. Will appears interested in meals (opening mouth when presented with food) which she appears to tolerate well

Past-Self vs. Future Self: Dementia Directives



Past-Self/Now-Self Dilemmas

- Common debate regarding advance directives in general:
 - What happens when the wishes of a **past-self** (expressed through an advance directive) conflict through the expressed wishes of an (potentially impaired) **current self**?



Past-Self/Now-Self Dilemmas: Stopping Eating and Drinking

- Recent attention paid to stopping assisted feeding and drinking by advance directive
- Wherein a person (prior to losing capacity) sets down in writing their desire to have assisted feedings withheld when dementia progresses to a certain point



Past-Self/Now-Self Dilemmas



<https://www.npr.org/sections/health-shots/2017/11/03/561393940/should-dementia-patients-be-able-to-decline-spoon-feeding>

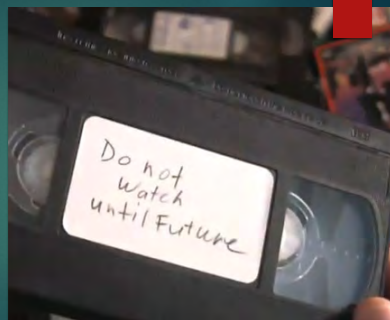
Past-Self/Now-Self Dilemmas



<https://www.npr.org/sections/health-shots/2018/03/27/59749464/aggressive-advance-directive-authorizes-stopping-food-in-cases-of-dementia>

Past-Self/ Now-Self Dilemmas

- Families to focus on past-self of the patient
 - More "real"
- Clinicians tend to give more weight to the now-self of the patient
 - No experience with the patient's past-self



Past-Self/Now-Self Dilemmas: Stopping Eating and Drinking

- Active area of debate among clinicians and ethicists
- 2019 ethicists at the Society for Post-Acute and Long-Term Care Medicine recommended NOT honoring dementia directives
- Expect more in this area as our population ages

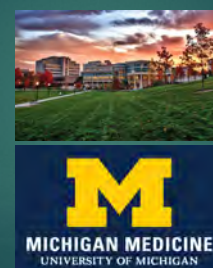
Volcker L et al J Am Med Dir Assoc. 2023 Jun;24(6)



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

Thank you!



SELF EVALUATION

Ethical Tensions at the End of Life

1. T/F - A patient with severe physical suffering related to a terminal disease requests a hastened end of life. Honoring such a request would be a violation of the Principle of Double Effect
2. Each of the following are aspects of the Principal of Double Effect EXCEPT
 - a. The good effect must outweigh the bad effect
 - b. The bad effect may be foreseeable, but must not be intended
 - c. The intention of an action does not matter, only the outcome
 - d. The principle of double effect, while commonly invoked in end of life care, can apply to many other clinical situations as well
3. Common reasons cited for family's request to withhold medical information from a seriously ill patient include all of the following EXCEPT
 - a. A wish to protect their loved on from any harm associated with truth telling
 - b. Distrust in the prognostic information provided by the medical team
 - c. Lack of confidence in how to discuss a terminal prognosis with their loved one
 - d. Patient's request to have information withheld.
4. T/F - A patient with medical decision-making capacity may decline to receive clinically-relevant information, and may instead defer any and all medication decision making to a surrogate
5. The ethical imperative to be truthful with patients stem from all of the following ethical principles EXCEPT
 - a. Autonomy
 - b. Beneficence
 - c. Maleficence
 - d. Justice
6. T/F - So-called "Dementia Directives" allow caregivers of patients with cognitive disabilities to plan for the care of their loved ones in event of the caregiver's death or disability

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

FACULTY

Nasia Safdar, MD, PhD, MBA

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 an American Society for Microbiology Distinguished Lecturer in 2023.

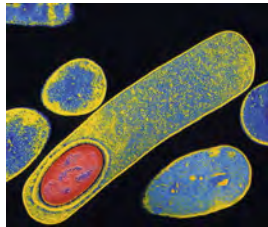
You may contact Dr. Safdar with your questions or comments at ns2@medicine.wisc.edu.

Clostridioides difficile: Current Approaches to Diagnosis, Treatment, and Prevention

Nasia Safdar, MD, PhD, MBA

Clostridioides difficile: Current Approaches to Diagnosis, Treatment, and Prevention

Nasia Safdar, MD, PhD, MBA
University of Wisconsin



Disclosures

- I have received funding from AHRQ, NIH, PCORI and the Dept of Veterans Affairs.
- I have served on an advisory board for Ferring and as a speaker for Nestle

Objectives

- Review the pathogenesis of *C. difficile* infection (CDI)
- Review national guidelines on management of CDI
- Evaluate the role of fecal microbiota transplantation in treatment of CDI



Table 1. Incidence of Clostridium difficile infection (CDI), according to Geographic Location and Epidemiologic Category, 2011.*

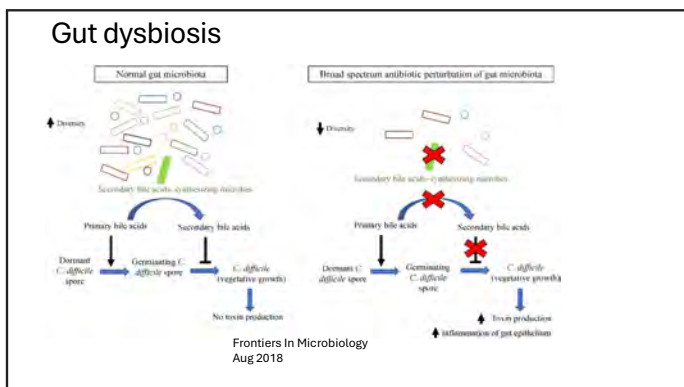
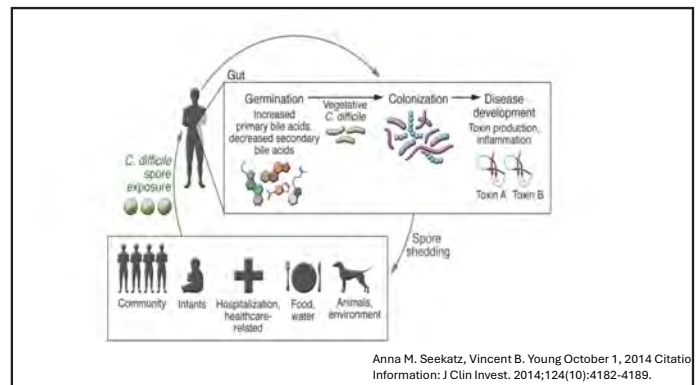
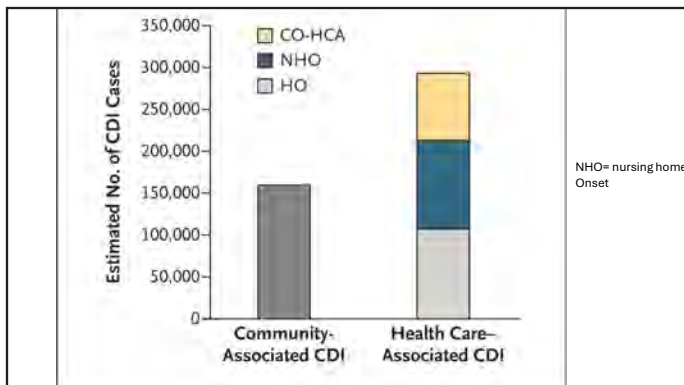
Site	Counties under Surveillance	Population $\pm$ Yr of Age	Community-Associated CDI		Health Care-Associated CDI	
			Total No. of Cases	Incidence per 100,000 Persons	Total No. of Cases	Incidence per 100,000 Persons
All sites		no.				
California	Sun Francisco	10,971,319	5384	48.2	10,177	92.8
Colorado†	Adams, Arapahoe, Denver, Douglas, Jefferson	804,110	287	37.0	733	91.2
		2,454,142	1229	50.1	2,200	89.7
Connecticut	New Haven	851,962	393	46.1	1,355	158.1
Georgia†	Clayton, Cobb, Douglas, DeKalb, Fulton, Gwinnett, Newton, Rockdale	1,689,307	1395	37.7	2,181	64.7
Maryland	Caroline, Cecil, Dorchester, Frederick, Kent, Somerset, Talbot, Queen Anne's, Washington, Wicomico, Worcester	826,430	485	58.7	1,056	127.7
Minnesota	Stearns, Benton, Morrison, Todd	244,884	303	123.7	177	72.3
New Mexico	Bernalillo	661,779	354	53.4	727	109.9
New York	Monroe	737,270	634	86.0	1,145	155.3
Oregon	Klamath	65,545	27	41.2	31	47.3
Tennessee	Davidson	625,890	167	26.7	172	59.4

* The 2011 population is based on estimates from the U.S. Census Bureau.²⁴ The epidemiologic category was statistically imputed for cases with unknown epidemiologic data as follows: 3 cases in California, 39 cases in Maryland, and 43 cases in New Mexico.
† The weighted frequency of cases was based on 33% random sampling.

Table 2. Adjusted U.S. National Estimates of Recurrences and Deaths Associated with CDI, according to Epidemiologic Category, 2011.*

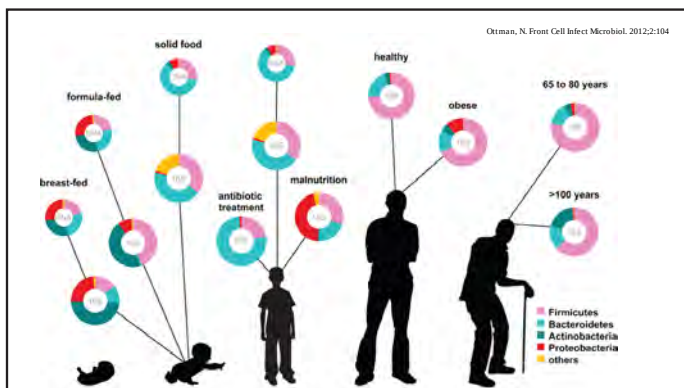
Characteristic	Estimated Recurrences		Recurrence Rate		Estimated Deaths		Death Rate	
	CA CDI	HCA CDI	CA CDI	HCA CDI	CA CDI	HCA CDI	CA CDI	HCA CDI
	no. (95% CI)		no. per 100,000 persons (95% CI)		no. (95% CI)		no. per 100,000 persons (95% CI)	
All cases	21,600 (18,900–26,300)	61,400 (40,200–82,600)	7.0 (5.5–8.6)	19.8 (13.0–26.9)	2000 (1200–2800)	27,300 (15,300–39,300)	5.7 (4.4–6.9)	8.5 (5.0–12.8)
Sex								
Male	7800 (3,100–10,500)	27,300 (12,800–41,800)	5.2 (3.4–6.9)	18.0 (8.5–27.4)	900 (450–1350)	12,900 (8300–20,700)	0.6 (0.3–0.9)	8.1 (3.5–13.7)
Female	13,800 (9600–17,600)	34,000 (18,700–49,400)	8.8 (6.3–11.3)	21.7 (12.0–31.6)	1100 (400–1700)	15,000 (6600–23,500)	5.7 (3.1–1.1)	9.6 (4.2–15.6)
Age group								
1–17 yr	1400 (900–1900)	900 (100–500)	2.0 (1.2–2.7)	0.4 (0.1–0.7)	NA	NA	NA	NA
18–44 yr	2600 (1300–3900)	3400 (1000–5700)	2.3 (1.1–4.4)	3.0 (0.9–9.0)	50 (0–120)	NA	NA	NA
45–64 yr	8200 (4000–8300)	9000 (4400–13,700)	7.5 (4.9–10.0)	10.8 (5.3–18.4)	420 (120–720)	4500 (1000–8000)	0.8 (0.3–0.9)	9.4 (1.2–9.7)
≥65 yr	11,400 (7400–15,400)	48,700 (28,100–69,200)	22.5 (17.9–27.2)	17.6 (8.9–26.2)	1500 (750–2200)	22,800 (11,300–34,200)	1.6 (1.0–2.2)	55.1 (27.5–82.6)
Race								
White	19,600 (14,900–24,200)	54,900 (34,000–75,700)	8.1 (6.2–10.3)	22.1 (14.1–31.3)	1800 (980–2400)	25,700 (13,900–37,600)	0.8 (0.4–1.1)	10.7 (5.8–19.1)
Nonwhite	2000 (600–3200)	6500 (400–12,600)	3.0 (1.8–4.8)	9.7 (5.8–18.8)	200 (0–190)	1000 (0–3500)	6.2 (0.0–6.6)	2.4 (0.0–5.2)

* A recurrence was defined as a positive result on testing for *C. difficile* in a stool specimen during the period from 14 days through 56 days after the initial episode of *C. difficile* infection (CDI). Death from CDI was defined as any death occurring within 30 days after positive results on testing for *C. difficile* in a stool specimen. CA denotes community-associated, HCA health care-associated, and NA not applicable because no deaths within 30 days were observed.



INTESTINAL MICROFLORA

- 50 bacterial phyla described
- Majority anaerobic
- Constitute 60% of dry weight of feces
- *Bacteroides* and *Firmicutes*
- 10 times greater than the number of human cells



CDI and antibiotic resistance

- Fundamentally a problem of antibiotic resistance
- *C. difficile* is:
 - Resistant to Fluoroquinolones
 - Resistant to Clindamycin
 - Resistant to Cephalosporins

Background

DISPATCHES

Fluoroquinolone Use and *Clostridium difficile*-associated Diarrhea

Margaret E. McCusker,* Anthony D. Harris,† Eli Perencevich,† and Mary-Claire Roghmann*†

We performed a case-control study to evaluate the association between antibiotic use and *Clostridium difficile*-associated diarrhea (CDAD), matching for admission date and time of onset. The PRRP is a multicenter, retrospective study of CDAD cases and controls. The study was conducted at the VAMHS institution from January 1, 2001, to June 30, 2001, who had a new onset of diarrhea documented in their medical records at least 72 hours after admission. A retrospective review of antibiotic use was performed.

The Study: The Veterans Affairs Maryland Health Care System (VAMHS) provides all medical services from intensive care to ambulatory and pharmacy services for approximately 36,000 veterans at four separate inpatient sites. A total of 778 beds are available for inpatient care. 120 of which are dedicated to acute medical and surgical care. Cases were defined as patients who were admitted to a VAMHS institution from January 1, 2001, to June 30, 2001, who had a new onset of diarrhea documented in their medical records at least 72 hours after admission. A retrospective review of antibiotic use was performed.

Emerging Infectious Diseases • Vol. 9, No. 6, June 2003

Antibiotics as risk factors for CDI

Table 3. Multivariable model of risk factors for *Clostridium difficile*-associated diarrhea in cases (n=30) versus controls (n=60), controlling for days at risk

Risk factor	Odds ratio	95% confidence interval
Fluoroquinolones	12.7	2.6 to 61.6
Cephalosporins	0.4	0.1 to 1.5
Clindamycin	2.2	0.5 to 9.1

Emerging Infectious Diseases • Vol. 9, No. 6, June 2003

Effects of control interventions on *Clostridium difficile* infection in England: an observational study

Kate E Diggle, Xavier Todd, T Phuong Quang, David W Fyne, Nicole Storrer, Tanya Gokubhari, Rosalind M Harding, David J Wilson, David Griffiths, Alison Vaughan, John M Finney, David H Wyllie, Sarah J Oakley, Warren N Fawley, Jane Freeman, Kirsti Morris, Jessica Martin, Philip Howard, Sherwood Garbath, Ellie C Goldstein, Diane M Goss, Susan Hopkins, Russell Hope, Alan P Johnson, Mark H Wilkes, Timothy E A Peis, A Sarah Walker, Derrick W Crook, the Modernising Medical Microbiology Informatics Group*

Summary

Background The control of *Clostridium difficile* infections is an international clinical challenge. The incidence of *C. difficile* in England declined by roughly 80% after 2006, following the implementation of national control policies; we tested two hypotheses to investigate their role in this decline. First, if *C. difficile* infection declines in England were driven by reductions in use of particular antibiotics, then incidence of *C. difficile* infections caused by resistant isolates should decline faster than that caused by susceptible isolates across multiple genotypes. Second, if *C. difficile* infection declines were driven by improvements in hospital infection control, then transmitted (secondary) cases should

Lancet Infect Dis 2012; 12: 613–21
Published Online: January 26, 2012
http://dx.doi.org/10.1016/S1473-3099(11)00144-X
See Comment page 353

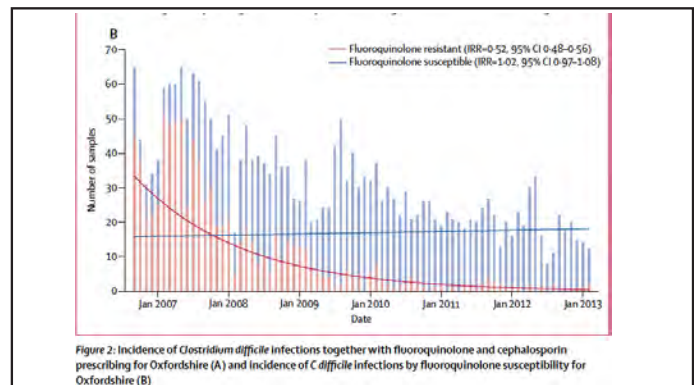
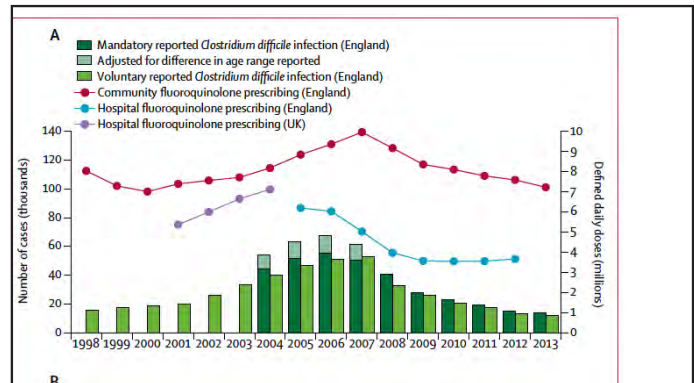
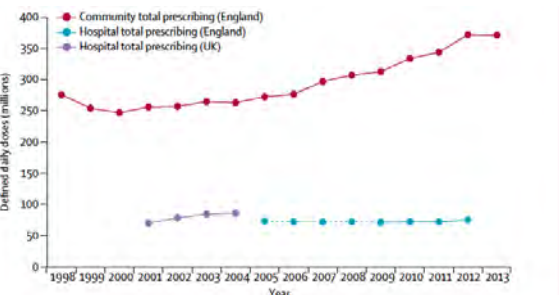


Figure 2: Incidence of *Clostridium difficile* infections together with fluoroquinolone and cephalosporin prescribing for Oxfordshire (A) and incidence of *C. difficile* infections by fluoroquinolone susceptibility for Oxfordshire (B)



Climo MW¹, Israel DS, Wong ES, Williams D, Coudron P, Markowitz SM. Hospital-wide restriction of clindamycin: effect on the incidence of *Clostridium difficile*-associated diarrhea and cost.

• Ann Intern Med. 1998; 128:989-95.

- *C. difficile* was clindamycin-resistant
Associated with increased use of clindamycin.
- Hospital-wide requirement of approval by an infectious disease consultant of clindamycin use:
 - overall reduction in clindamycin use
 - a sustained reduction in CDI (11.5 cases/month compared with 3.33 cases/month; $P < 0.001$)
 - an increase in clindamycin susceptibility among *C. difficile* isolates (9% compared with 61%; $P < 0.001$).
 - A parallel increase was noted in the use of and costs associated with other antibiotics

IDSA guidelines of management of CDI

Clinical Practice Guidelines for the Management of *Clostridioides difficile* Infection in Adults: 2021 Update by SHEA/IDSA

Published June 14, 2021 Last Updated May 05, 2023

IDSA Guidelines for management of CDI

What are the best treatments of an initial CDI episode to ensure resolution of symptoms and sustained resolution 1 month after treatment?

For patients with an initial CDI episode, we suggest using fidaxomicin rather than a standard course of vancomycin (conditional recommendation, moderate certainty of evidence). **Comment:** This recommendation places a high value in the beneficial effects and safety of fidaxomicin, but its implementation depends upon available resources. Vancomycin remains an acceptable alternative.

- The dosage is vancomycin 125 mg orally 4 times per day or fidaxomicin 200 mg twice daily for 10 days (*strong recommendation, high quality of evidence*)

IDSA Guidelines for management of Recurrent CDI

- In patients with recurrent CDI episodes, fidaxomicin (standard or extended-pulsed regimen) rather than a standard course of vancomycin (conditional recommendation, low certainty evidence).
- Vancomycin in a tapered and pulsed regimen or vancomycin as a standard course are acceptable alternatives for a first CDI recurrence. For patients with multiple recurrences, vancomycin in a tapered and pulsed regimen, vancomycin followed by rifaximin, and fecal microbiota transplantation are options in addition to fidaxomicin.

OTHER SCENARIOS

- There are insufficient data at this time to:
- recommend extending the length of anti-*C. difficile* treatment beyond the recommended treatment course or restarting an anti-*C. difficile* agent empirically for patients who require:
- continued antibiotic therapy directed against the underlying infection
- retreatment with antibiotics shortly after completion of CDI treatment, respectively (*no recommendation*).

IDSA Guidelines for management of CDI

What is the role of proton pump inhibitor restriction in controlling CDI rates?

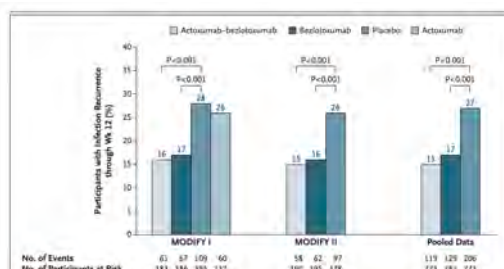
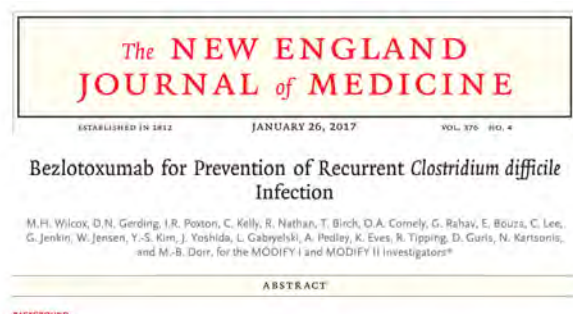
Although there is an epidemiologic association between proton pump inhibitor (PPI) use and CDI, and unnecessary PPIs should always be discontinued, there is insufficient evidence for discontinuation of PPIs as a measure for preventing CDI (*no recommendation*).

IDSA Guidelines for management of CDI

What is the role of repeat testing, if any? Are there asymptomatic patients in whom repeat testing should be allowed, including test of cure?

Do not perform repeat testing (within 7 days) during the same episode of diarrhea and do not test stool from asymptomatic patients, except for epidemiological studies (*strong recommendation, moderate quality of evidence*).

NO LONGER AVAILABLE ON THE MARKET



Fidaxomicin for *C. difficile* infection

Clinical Trial > Lancet Infect Dis. 2018 Mar;18(3):296-307.
doi: 10.1016/S1473-3099(17)30751-X. Epub 2017 Dec 18.

Extended-pulsed fidaxomicin versus vancomycin for *Clostridium difficile* infection in patients 60 years and older (EXTEND): a randomised, controlled, open-label, phase 3b/4 trial

Benoit Guery ¹, Francesco Merichetti ², Veli-Jukka Anttila ³, Nicholas Adomakoh ⁴, Jose Maria Aguado ⁵, Karen Blisnauthsing ⁶, Areti Georgopoli ⁴, Simon D Goldenberg ⁶, Andreas Karas ⁴, Obenga Kazeem ⁴, Chris Longshaw ⁴, Jose Alejandro Palacios-Fabrega ⁴, Oliver A Cornely ⁷, Maria J G T Vehreschild ⁸; EXTEND Clinical Study Group

Affiliations > expand

PMID: 29273269 DOI: 10.1016/S1473-3099(17)30751-X

	Number of patients	Fidaxomicin	Vancomycin	Treatment difference (95% CI)	p value
EXTEND, randomised, open label¹					
Clinical cure	356	142/177 (80%)	147/179 (82%)	-1.9%	0.721
Recurrence ²	289	77/141 (54%)	30/147 (20%)	-35.5%	0.00031
Sustained clinical cure	356	124/177 (70%)	106/179 (59%)	10.8% (1.0 to 20.7)	0.030
Louie et al., randomised, double-blind³					
Clinical cure	596	253/287 (88%)	265/309 (86%)	2.4%	NS
Recurrence	518	39/253 (15%)	67/265 (25%)	-9.9% (-16.6 to -3.9)	0.005
Sustained clinical cure	596	214/287 (75%)	198/309 (64%)	10.5% (3.1 to 17.7)	0.006
Conry et al., randomised, double-blind⁴					
Clinical cure	509	221/252 (88%)	223/257 (87%)	0.9% (-4.9 to 6.7)	0.754
Recurrence	444	28/221 (13%)	50/223 (22%)	-14.2% (-21.4 to -6.8)	0.0003
Sustained clinical cure	509	193/252 (77%)	163/257 (63%)	13.2% (5.3 to 21.0)	0.001

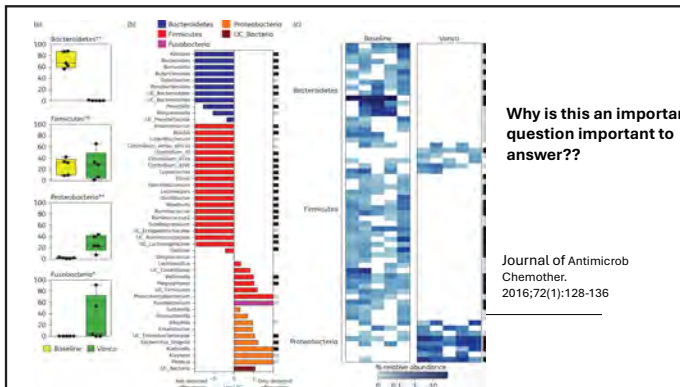
NS=not significant. ¹Patient mean age 75 years. ²Recurrence rate at 30 days after last dose (day 40 for vancomycin, day 55 for extended-pulse fidaxomicin) recalculated to remove clinical cure failures from the denominator to make recurrence results comparable to the other two reports. ³p value calculated using χ^2 with Yates correction. ⁴Compared standard-dose fidaxomicin (200 mg twice daily for 10 days) with standard-dose vancomycin (125 mg four times daily for 10 days). ⁵Patient mean age 61.6 years. ⁶Patient mean age 63.4 years.

Table: Comparison of EXTEND study outcomes with two earlier publications

EXTEND TRIAL
FIDAXOMICIN
DOSING:
200 mg oral tablets,
twice daily on days 1-5,
then once daily on
alternate days on days
7-25

Prophylaxis with oral vancomycin to prevent recurrence

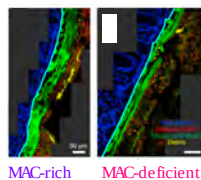
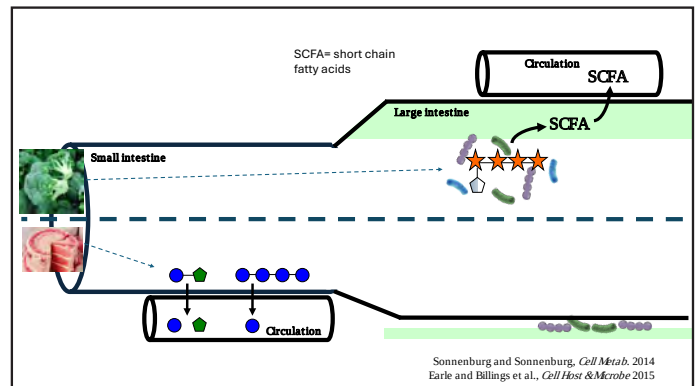
- Low dose 125 mg PO once or twice daily
- Given for as long as patient is on antibiotics and for 1 week after
- Efficacy is uncertain but use is widespread



Oral vancomycin prophylaxis in transplant patients

- Renal transplant recipients with history of CDI, hospitalized with receipt of broad spectrum abx during a unit-specific CDI outbreak period-January 1, 2012, to December 31, 2015
- Divided into 2 matched cohorts: patients who received oral vancomycin prophylaxis concomitantly with abx and patients who did not.
- There were no cases of CDI recurrence in the prophylaxis group (0% [0/12] vs 8% [2/24], P = 0.54).
- No data from RCTs available and not currently recommended routinely

Food as Medicine



MAC deprivation leads to a bloom of mucus-utilizing bacteria and elevated inflammation

Hypothesis: MAC deprivation (dysbiosis and inflammation) affects multiple disease states

Earle and Billings et al., *Cell Host & Microbe* 2015

Aim: Understand how fiber supplementation affects human *C. difficile* infection, carriage, or recurrence in humans

Open Access Protocol

BMJ Open Wisconsin microbiome study, a cross-sectional investigation of dietary fibre, microbiome composition and antibiotic-resistant organisms: rationale and methods

Shoshannah Eggers,¹ Kristen MC Malecki,¹ Paul Peppard,¹ Julie Mares,² Daniel Shirley,³ Sanjay K Shukla,⁴ Keith Poulson,⁵ Ronald Gangnon,^{1,6} Megan Duster,² Ashley Kates,² Garret Suen,⁷ Ajay K Sethi,¹ Nasia Salfar^{1,8}

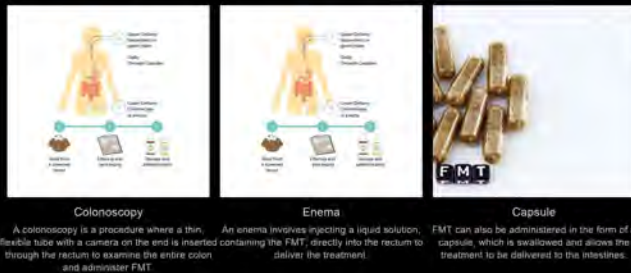
Lower prevalence of *C. difficile* colonization in group with higher fiber intake



FECAL MICROBIOTA TRANSPLANTATION



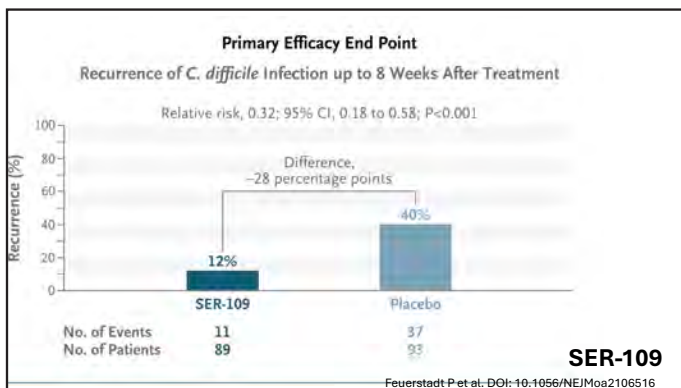
FMT Administration Methods



LIVE BIOTHERAPEUTIC PRODUCTS

SER-109: purified live oral firmicutes spores

Rebyota: broad consortium of microbes delivered by enema



REBYOTA-



FMT earlier in course of CDI?

Original Research | 19 June 2023

Fecal Microbiota Transplantation Versus Vancomycin for Primary *Clostridioides difficile* Infection: A Randomized Controlled Trial

Authors: Frederik Emil Jørgensen, MD, PhD; Michael Bretznauer, MD, PhD; Peter H. Johansen, MD, PhD; Taye Sastry, BSc; Kristian Tønby, MD, PhD; Jan Erik Sævi, MD, PhD; Dag Arne L. Hoff, MD, PhD; ... and Kjetil V. Gøtzsche, MD, PhD

PUBLICATION: *Annals of Internal Medicine* • <https://doi.org/10.7326/annals.23a03205>

Results

- 104 randomly assigned patients
- 100 received FMT or the first dose of vancomycin
- Clinical cure and no disease recurrence within 60 days without additional treatment: 34 of 51 patients (66.7%) with FMT versus 30 of 49 (61.2%) with vancomycin
- Open label study
- Clinical endpoints

Background



Summary

- CDI is the most common cause of healthcare-associated diarrhea
- It is made possible by gut dysbiosis induced by antibiotics
- It is now increasingly common in the community
- Fecal Microbiota Transplantation offers excellent cure rates
- Future therapies should explore the role of gut microbiome precision manipulation to avoid transmission of pathogens

SELF EVALUATION

Clostridioides difficile: Current Approaches to Diagnosis, Treatment, and Prevention

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

Opioid Use in Pain Management

Neil Gokal, MD, FAAFP

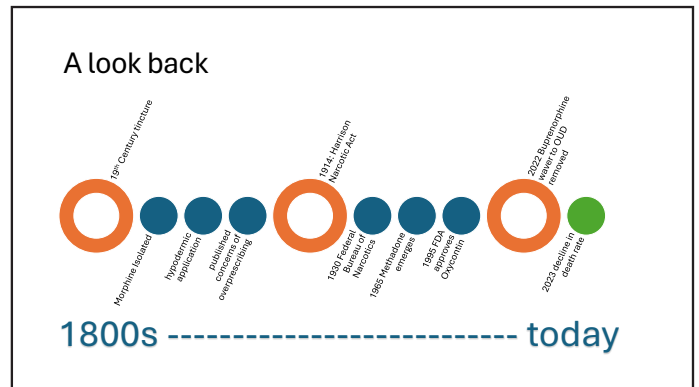


Disclosures

- None

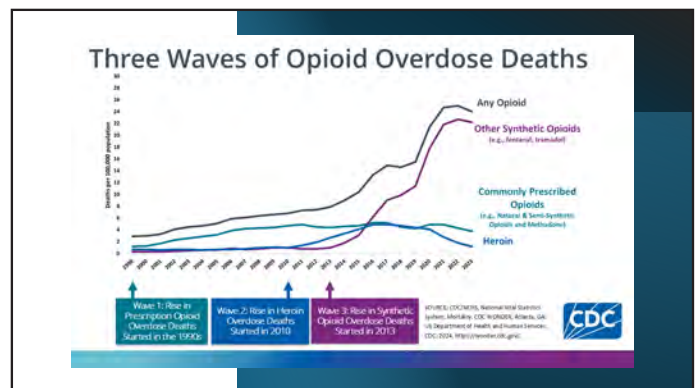
Objectives

- Review the historical background of Opiates
- Understand current landscape
- Deep dive into the CDC 2022 Opiate Prescribing Recommendations
- Utilize tools for improved safety and efficacy in opiate management



Opioid Impact

- 105,000 deaths from drug overdose
 - 76% involved opioids
- Opioid deaths increased 10 fold
- Opioid death rate decreased 4% from 2022 to 2023



EQUITY PAUSE!



How has your practice changed?



Why has your practice changed?

CDC Opioid Prescribing Guide

- Initially created 2016 & updated 2022
- Clinicians treating adults (18+)
- Excludes** management related to
 - sickle cell disease
 - cancer-related pain
 - palliative care
 - end of life care

CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022 | <https://www.cdc.gov/mmwr/volumes/71/rr/rr7103a1.htm#printMMWR>

CDC Opioid Prescribing Recommendations

Decision to Initiate

Selecting type & dose

Determining duration & follow up

Assessing risk

Acute Pain

A 45 yo patient presents to discuss an “annoying” pain in her right lower back that started 2 weeks ago after lifting a heavy box. The pain persists, disrupts her sleep, and is impacting her ADLs. She does not want to miss more time away from work and feels that this pain is slowing her down.

Acute Pain: Recommendation 1

“Nonopioid therapies are at least as effective as opioids for many common types of acute pain.”

Decision to Initiate Opioids

Noninvasive Nonpharmacologic Approaches

ACP for low back pain:

- Superficial heat
- Massage
- Acupuncture
- Spinal manipulation

ACP & AAFP for MSK injuries:

- Accupressure
- Transcutaneous electrical nerve stimulation (TENS)

Nonopioid Medications

Topical NSAID

Oral NSAID or acetaminophen

First Line Recommendations

- ACP: NSAID, muscle relaxant
- ACP/AAFP: topical NSAID +/- menthol gel
- ADA: NSAID
- ACOG: acetaminophen, NSAID, low dose low potency opioid PRN

“NSAIDs have been found to be more effective than opioids for surgical dental pain and kidney stone pain and similarly effective to opioids for low back pain”

NSAIDs

	Medication	Route	Max Daily Dose	Caution
NONSELECTIVE	Ibuprofen	PO	1200 mg/day	Nephrotoxic GI CVD
	Naproxen	PO	1000 mg/day	
	Diclofenac	PO	150 mg/day	
	Ketorolac	PO, IM, IV	40 mg/day PO 120 mg/day IM/IV	
	Meloxicam	PO	15 mg/day	Nephrotoxic CVD
	Celecoxib	PO	7.5 mg/day 200 mg/day	

Acetaminophen

Route	Max Daily Dose	Caution
PO, Rectal, IV	4000 mg/day*	Hepatotoxicity

*IV offers no different analgesic advantage vs PO

- ▶ Analgesic + Antipyretic properties (no anti-inflammatory effect)
- ▶ Low cost
- ▶ Often the safest
- ▶ Consider as combination

*lower if hepatic disease

Topical Analgesics

Medication	Application	Cost
Diclofenac 1%	2-4 g QID	\$15 (Voltaren)
Diclofenac 3%		\$50 tube of 100g
Camphor, menthol, clove	.5 g QID	\$8
Methyl salicylate/camphor/menthol	Patch	\$15
	Cream	Varies (Salonpas, Bengay, Bufferin, Icy Hot)
Salicylate	Cream	\$12 Aspercreme
Menthol	Spray/Cream	\$15 Biofreeze

Chronic Pain

A 52 yo patient new to you presents to establish care. He notes a history of MVA 6 months ago subsequent to which he has had profound R shoulder pain worse with movement that has only minimally improved with exercise for which he uses NSAIDs PRN and also hydrocodone 5mg QHS.

Subacute/Chronic Pain: Recommendation 2

"Nonopioid therapies are preferred for subacute and chronic pain. Clinicians should maximize use of nonpharmacologic and nonopioid pharmacologic therapies as appropriate for the specific condition and patient and only consider initiating opioid therapy if expected benefits for pain and function are anticipated to outweigh risks to the patient."

Decision to Initiate Opioids

Continuing Therapy

Establish treatment goals (inc function)

Avoid rapid tapering or abrupt cessation

Interventional Approaches

Arthrocentesis

Intra-articular glucocorticoid injection

Subacromial corticosteroid injection

Epidural steroid injections

Nerve ablation

Neurostimulation

Multimodal Approaches

Access and cost (lack of coverage) may be a barrier



Medical
Combination therapy
Physical therapy



Psychological
Cognitive behavioral therapy
Education



Social
Acqua therapy
Acupuncture
Yoga
Tai Chi

Opiate Dosing

A 64 yo patient with advanced RA on Methotrexate unable to tolerate NSAIDs due to h/o renal transplant admits to debilitating pain impacting all of her IADLs.

Selecting Opioid and Dose

Selecting Opioid & Dose: Recommendation 3

"Initiate immediate-release opioids instead of extended-release and long-acting (ER/LA) opioids"

- Account for incomplete opioid cross-tolerance
- ER/LA preparations for severe pain requiring daily continuous treatment

Opiate Dosing

A 44 yo patient presents for ED follow up after traumatic humeral shaft fracture endured during a sports boxing match. Cast is in place and he is scheduled to see orthopedics in 1 week. He is on no other medications and states that "nothing is working" to alleviate the sharp severe constant pain he is feeling.

Selecting Opioid and Dose

Selecting Opioid & Dose: Recommendation 4

"opioids initiated for opioid-naïve patients with acute, subacute, or chronic pain prescribe the lowest effective dosage"

Dosing Points

lowest starting dose for opioid-naïve:

- single dose 5–10 MME
- daily dose of 20–30 MME/day

dosage > 50 MME/day

- Likely have less benefit
- Consider additional precautions (naloxone)
- Some states require PM consultation for dosages >120 MME/day

Treatment Duration

72 yo pt presents with his daughter for follow up. He has a history of well controlled hypertension off of medication and chronic low back pain previously controlled with hydrocodone 10-325mg TID that you have been managing for 6 years. Patient's daughter expresses concern that her father is often groggy sleeping most of the day and night not socializing or participating in ADLs.

Duration of Treatment: Recommendation 5

Duration of Treatment

"For patients already on opioid therapy, weigh benefits and risks of changing."

- Benefits > risks, optimize nonopioid therapies
- Benefits < risks, optimize other therapies and work with patients to gradually taper
- Opioid therapy should not be discontinued or decreased abruptly

Indications for Taper



Challenges of Taper

- ⚠ Patient fear
- 🚫 Side effects and withdrawal symptoms
- 🔄 Prolonged hyperalgesia
- 💚 Behavioral health
- 🤝 Psychosocial support

Rates of Taper

- Individualized
 - Months to years
 - 10% or less per month decrease
 - Not always continuous
 - Not for pregnant patients
- CDC Pocket Guide: <https://stacks.cdc.gov/view/cdc/45237>

Withdrawal Symptoms

Stage	Grade*	Physical Signs and Symptoms	Treatment Options
Early Withdrawal (8-24 hours after last use)	1	Lacrimation, Rhinorrhea, Diaphoresis, Yawning, Restlessness, Insomnia	- Antihistamines or trazodone for insomnia/restlessness
	2	Piloerection, Myalgias, Arthralgias, Abdominal pain	- NSAIDs/Acetaminophen for muscle and joint pain - Loperamide/bismuth subsalicylate for abdominal cramping
Fully Developed Withdrawal (1-3 days after last use)	3	Tachycardia, Hypertension, Tachypnea, Fever, Anorexia, Nausea	- Clonidine for autonomic symptoms - Ondansetron/H2 blockers for nausea
	4	Diarrhea, Vomiting, Dehydration, Hypotension	- Loperamide for diarrhea - Oral rehydrating solutions
Post Acute Withdrawal Syndrome (PAWS)		Mood swings, Anxiety, Irritability, Anhedonia, Fatigue, Poor concentration, Insomnia	- Recovery services - Relapse prevention strategies

*The severity of opioid withdrawal is defined by symptoms and described by four categories or grades.

AAPF Chronic Phttps://www.aapf.org/dam/aapf/documents/patient_care/pain_management/cpm-toolkit-prescribing.pdfain Toolkit

Treatment Duration

29 yo patient presents for 3rd follow up after ankle fracture 12 weeks prior from a skating accident that has healed well. She reports being full weight bearing with no pain adding that she rarely needed to use the "pain meds" provided by her surgeon. She does state that she will occasionally take an ibuprofen at the end of a long day and is wondering if she can have another refill of hydrocodone "just in case."

Duration of Treatment

Duration of Treatment: Recommendation 6

"When opioids are needed for acute pain, clinicians should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids"

- Acute pain can be managed without opioids
- Avoid prescribing "just in case"
- Ongoing monitoring at least q 2 weeks if receiving opiates for acute pain
- If continuation >30 days ensure that other causes are addressed

Treatment Evaluation

78 yo patient with a long history of back pain previously controlled on oxycodone 5mg daily without side effects and improvement in functionality presents s/p R BTK amputation secondary to vascular insufficiency complaining of new "phantom pains" that impact ADL and sleep.

Evaluation of Treatment: Recommendation 7

"Clinicians should evaluate benefits and risks with patients within 1-4 weeks of starting opioid therapy for subacute or chronic pain or of dosage escalation."

- Regularly reevaluate benefits and risks of continued therapy
 - q4 week with IR <50 MME/day
 - q3 month on long term therapy
 - More frequently if higher risk

Duration of Treatment

Risk Assessment

65 yo pt well known to you for 12 years presents for routine 6 month follow up and refill of his hydrocodone 10-325 mg that he takes BID to maintain functionality in his job as a commercial truck driver in spite of chronic back pain.

Assessing Risk: Recommendation 8

"Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk for opioid-related harms and discuss risk with patients."

- Strategies to mitigate risk (naloxone)

Assessing Risk

At Risk Groups

- Sleep Apnea
- Pregnant
- Renal or Hepatic Insufficiency
- Age >65
- Occupational Hazards
- Mental Health Conditions
- Substance Use Disorder (inc h/o prior OD)



Risk Assessment

42 yo patient presents after relocating from out of state to establish care. She reports being mostly in good health and her only medication is hydrocodone 5-325 mg that she takes BID due to chronic shoulder and neck pain. She lost her medication in her move and can't get a hold of her prior PCP.

Assessing Risk

Assessing Risk: Recommendation 9

"When prescribing opioid therapy, review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data"

- Review before initiation and q 3 months
- Do not dismiss patients based on PDMP

Risk Assessment

77 yo pt presents for annual physical exam reporting no concerns since last visit last year. He continues to find benefit from his hydrocodone 5-325mg QD that you initiated 3 years ago and reports no side effects. He additionally mentions that his family including his son, daughter in law, and grandkids recently moved in with him so his social support has increased.

Assessing Risk

Assessing Risk: Recommendation 10

"Consider the benefits and risks of toxicology testing to assess for prescribed medications as well as other prescribed and nonprescribed controlled substances"

- Prior to initiation and at least annually
- Not punitive
- Do not dismiss patients as a result

Risk Assessment

68 yo pt with a h/o GAD controlled with alprazolam 1mg BID for many years presents for follow up after urgent care visit for back pain. She states that she was gardening and pulled a muscle in her back so went for evaluation where she was given tramadol that helped significantly and would like a refill.

Assessing Risk

Coprescribing Caution: Recommendation 11

"Use caution when prescribing opioids and benzodiazepines concurrently"

- Benzodiazepines can potentiate opioid-induced CNS depression
- Caution with other CNS depressants
 - Muscle relaxants
 - Sedative hypnotics
 - Anticonvulsants (gabapentin and pregabalin)

Risk Assessment

66 yo pt with a history of scalp melanoma 30 years ago and herpes zoster 24 years ago presents for routine follow up requesting refill of pain medications (dilaudid 2mg BID) that she has been on since her herpes diagnosis. She additionally states that she has had to increase to TID otherwise pain is more severe and she starts to feel nauseated and as a result is running out sooner having to use her neighbor's medication.

Opioid Use Disorder: Recommendation 12

Assessing Risk

"Offer or arrange treatment with evidence-based medications to treat patients with opioid use disorder."

- Detoxification without medications is not recommended
- FDA Approved Medications:
 - Buprenorphine- can be prescribed with SAMHSA waiver
 - Buprenorphine Practitioner Locator
 - Methadone- opioid treatment program
 - Opioid Treatment Program Directory
 - Naltrexone- prescribed in any setting

Opioid Use Disorder DSM V

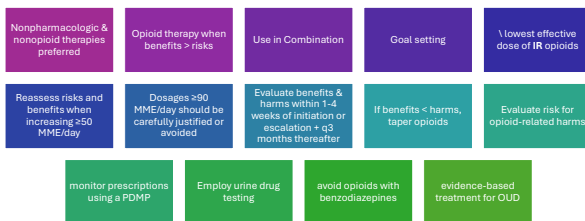
a problematic pattern of opioid use leading to clinically significant impairment or distress

4 C's

2 of 11 criteria within 1 year regarding Opioids:

- impaired **control** (taken in larger amounts or for longer duration than intended)
- persistent desire or unsuccessful attempts to cut down
- excess time spent in activities to obtain, use, or recover from effects
- craving**, strong desire, or urge to use
- failure to fulfill major role obligations as a result of use
- continued** use despite having social or interpersonal problems as a result
- relinquished social, occupational, or recreational activities because of use
- recurrent use in situations in which it is physically hazardous
- compulsive** use despite knowledge of physical or psychological problem caused or exacerbated by the substance
- tolerance (need for increased amounts OR less effect from same amount)
- withdrawal (experiencing symptoms OR using substance to avoid symptoms)

CDC Recommendations Overview



Opioid Conversions

Keep in Mind that Conversion Charts Vary

- Calculate total daily dose (PDMP, EMR) of all opiate medications
- Convert to Morphine Milligram Equivalents (MME)
- Determine equivalent daily dose of new opioid
- Reduce initial dose by 25-50%
- Divide into appropriate intervals

Opioid	Conversion Factor (convert to MMEs)	Duration (hours)	Dose Equivalent Morphine Sulfate (30 mg)
Codone	0.35	4-6	200 mg
Fentanyl (mcg/hr)	2.4		12.5 mcg/hr**
Hydrocodone	1	3-6	30 mg
Hydroxycodone	4	4-5	7.5 mg
Morphine	1	3-6	30 mg
Oxycodone	1.5	4-6	20 mg
Oxymorphone	3	3-6	10 mg
Mettadone†			
1-20 mg/d	4		7.5 mg
21-40 mg/d	8		3.75 mg
41-60 mg/d	10		3 mg
≥61 mg/d	12		2.5 mg

*The dose conversions listed above are an estimate and cannot account for an individual patient's genetics and pharmacokinetics.
 **Fentanyl is dosed in microgram per hour (mcg/hr) instead of milligram per day (mg/d), and absorption is affected by heat and other factors.
 †Mettadone conversion factors increase with increasing dose.

Sample Case

38 yo F taking oxymorphone 10 mg TID for chronic pain

- Conduct history and physical
- Assess risk factors
- Set goals and expectations

Deeming appropriate for long-acting regimen, plan is to convert to oxycodone ER

So...what do you prescribe?

38 yo F 10 mg oxymorphone TID conversion:

Opioid	Conversion Factor (convert to MMEs)	Duration (hours)	Dose Equivalent Morphine Sulfate (30 mg)
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1-20 mg/d	4		7.5 mg
21-40 mg/d	8		3.75 mg
41-60 mg/d	10		3 mg
≥61 mg/d	12		2.5 mg

Total daily dose of oxymorphone:
 10 mg x TID = 30 mg/day

*The dose conversions listed above are an estimate and cannot account for an individual patient's genetics and pharmacokinetics.
 **Fentanyl is dosed in microgram per hour (mcg/hr) instead of milligram per day (mg/d), and absorption is affected by heat and other factors.
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21-40 mg/d	8		3.75 mg
41-60 mg/d	10		3 mg
≥61 mg/d	12		2.5 mg

Total daily dose of oxymorphone:
 10 mg x TID = 30 mg/day

Convert to MME (use conversion factor):
 30 x 3 = 90 MME

*The dose conversions listed above are an estimate and cannot account for an individual patient's genetics and pharmacokinetics.
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Total daily dose of oxymorphone:
 10 mg x TID = 30 mg/day

Convert to MME (use conversion factor):
 30 x 3 = 90 MME

Determine oxycodone MME (use conversion factor):
 90/1.5 = 60 mg/day

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Metadone†			
120 mg/d	4		7.5 mg
240 mg/d	8		3.75 mg
480 mg/d	10		3 mg
960 mg/d	12		2.5 mg

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Total daily dose of oxymorphone:
 10 mg x TID = 30 mg/day

Convert to MME (use conversion factor):
 30 x 3 = 90 MME

Determine oxycodone MME (use conversion factor):
 90/1.5 = 60 mg/day

Safety decrease by 25-50%:
 25% of 60 = 15, 60-15 = 45

WHY?
 • Avoid unintentional overdose
 • Account for variations in pharmacokinetics

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Determine oxycodone MME:
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Safety decrease by 25%:
 25% of 60 = 15, 60-15 = 45

Divide by dosing interval (BID):
 45/2 = 22.5

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Convert to MME (use conversion factor):
 30 x 3 = 90 MME

Determine oxycodone MME:
 90/1.5 = 60 mg/day

Safety decrease by 25%:
 25% of 60 = 15, 60-15 = 45

Divide by dosing interval (BID):
 45/2 = 22.5

Approximate dose: 20mg oxycodone BID

Assessing Pain

Tool	Description	Source
Brief Pain Inventory (BPI)	Evaluate pain severity and interference of daily function based on questions	Charles S Cleeland, PhD MD Anderson Cancer Center
Pain Enjoyment of Life and General Activity (PEG) Scale	3 question average to characterize pain severity and gauge interference	Krebs EE, Lorenz KA, Blair MJ, et al.
Numeric Pain Rating Scale	Measures pain intensity over 24 hours with visual or verbal cue	Dr Ronald Metzack and Dr Warrant Torgerson, McGill University
Verbal Rating Scale	Qualitative method for assessing pain intensity	Collaborative effort
Wong Baker	Cartoon faces to correlate pain intensity	Donna Wong and Connie Baker
McGill Pain Questionnaire (MPQ)	Numerical intensity scale to monitor pain over time	Dr Ronald Metzack, McGill University

Resources for Practice

- Controlled Substance Agreement
 - for patient and clinician
- Evaluate risks *prior* to initiation:
 - ☐ **Screener & Opioid Assessment for Patients with Pain (SOAPP-R)**
 - 24 item questionnaire
 - ☐ **Opioid Risk Tool (ORT)**
 - 9 item questionnaire
 - ☐ **Diagnosis, Intractability, Risk, Efficacy Score (DIRE)**
- Monitor for misuse *during* treatment:
 - ☐ **Current opioid misuse measure (COMM)**
 - 17 item patient self-assessment

Resource Links

- Diagnosis, Intractability, Risk, Efficacy Score
https://www.agencydirectors.wa.gov/Files/AssessmentTools/1.1-DIRE_score.pdf
- SOAPP-R:
https://www.utahmed.org/Common/Uploaded%20files/Docs/CS_Resources/SOAPP-R%20-%20Screening%20and%20Opioid%20Assessment%20for%20Patients%20with%20Pain-Revised.pdf
- Opioid Risk Tool:
<https://nida.nih.gov/sites/default/files/opioidrisktool.pdf>
- COMM
<http://mytopcare.org/wp-content/uploads/2013/05/COMM.pdf>
- Buprenorphine Practitioner Locator
<https://www.samhsa.gov/substance-use/treatment/find-treatment/buprenorphine-practitioner-locator>
- Opioid Treatment Program Directory
<https://dpt2.samhsa.gov/treatment/directory.aspx>
- CDC Pocket Guide
<https://stacks.cdc.gov/view/cdc/45237>

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Primum non nocere

Thank you!

SELF EVALUATION

Opioid Use in Pain Management

1. CDC recommendations state that for acute pain, non-opiate therapy is ____ effective as opiate therapy.
 - a. Less
 - b. Equally
 - c. More
 - d. Not at all as
2. Unlike nonselective NSAIDS, selective NSAIDS do not carry risk of:
 - a. Cardiovascular disease
 - b. Nephrotoxicity
 - c. GI damage
 - d. Hepatotoxicity
3. While often a safe treatment for pain, acetaminophen does not provide this effect:
 - a. Analgesia
 - b. Anti-pyretic
 - c. Anti-inflammatory
4. For patients suffering from OUD, a licensed clinician can legally prescribe the following prescription without a waiver or program based certification:
 - a. Buprenorphine
 - b. Nalxtraxone
 - c. Methadone
5. DSM Criteria for OUD require meeting at least out ____ of 11 criteria within 1 year:
 - a. 4
 - b. 3
 - c. 2
 - d. 1

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

FACULTY

Leslie S. Zun, MD, MBA, FACEP, FAAEM

Leslie S. Zun, MD, MBA, FACEP, FAAEM, is a Professor of Emergency Medicine, with a secondary appointment in Psychiatry, at Rosalind Franklin University of Medicine and Science in North Chicago, Illinois. He also serves as Chief Medical Officer for Hamdard Health Alliance and practices at Northwestern Medicine. Dr. Zun earned his medical degree from Rush Medical College and an MBA from Northwestern University's School of Management. He is an internationally recognized expert in emergency medicine and behavioral emergencies, with extensive experience lecturing and presenting research around the world. A past President of the American Association for Emergency Psychiatry, he has also served in leadership roles with the American Academy of Emergency Medicine and the Coalition for Psychiatric Emergencies. He is the chief editor of *Behavioral Emergencies for Healthcare Providers* and has directed the National Update on Behavioral Emergencies conference for over 17 years.

You may contact Dr. Zun with your comments or questions at leszun@gmail.com.

Depression: Diagnosis and Treatment

Leslie S. Zun, MD, MBA, FACEP, FAAEM

Depression: Diagnosis and Treatment

Leslie S Zun, MD, MBA, FAAEM, FACEP
Chief Medical Officer, Hamdard Health Alliance
Professor
Department of Emergency Medicine & Psychiatry
Chicago Medical School
Chicago, Illinois

Learning Objectives

At the conclusion of this presentation participants will:

- Be familiar with presentations of depression
- Review signs and symptoms of depression
- List pharmacological and non-pharmacological treatment options for depression

Epidemiology and Clinical Characteristics

Impact of MDD

Maurer, D.M, et al: Depression: Screening and diagnosis. Am Fam Physician 2018;98:508-515.

- Mood disorders are very common – 1/5 women, 1/8 men in US lifetime; 10 -14 million people
- Cost in the USA-near \$210 billion
- Increase morbidity and mortality
 - Worsens outcome of cardiac disease and diabetes
 - Increased substance abuse – ETOH, nicotine
 - Long term disability may occur – 5X sick days
 - Poorer health status and prognosis

Incidence

- ▶ Treatment only 29%
- ▶ Prevalence – White>Hispanic>African American
- ▶ Recurrence
 - ▶ One episode – 50%
 - ▶ Recurrence - 75%
 - ▶ Third – 90%

Risk Factors

Maurer, D.M, et al: Depression: Screening and diagnosis. Am Fam Physician 2018;98:508-515.

- ▶ Internal
 - ▶ Female, hx of anxiety, low self-esteem, neuroticism
- ▶ External
 - ▶ Conduct disorder, substance use
- ▶ Adverse Life Events
 - ▶ Childhood sexual abuse, chronic medical problems, disputed family environment, divorce, lifetime trauma, low educational status, low social support, parental loss

Assessment of Depression

- Identify signs/symptoms of depression
- Identify manic/hypomanic symptoms
- Identify current/past substance use disorders
- Assess social, occupational, family functioning

Assessment of Depression

- Screen for aggression
- Screen for suicide/self-harm
 - Have you been thinking about death or having thoughts about killing yourself (suicide)?
 - Do you wish that you were dead or that you could go to sleep and just not wake up?
- Screen for psychosis

Screening & Monitoring Tools

FAMILY PRACTICE MANAGEMENT | www.aafp.org/fpm | March/April 2016

- ▶ Adolescent screening tools (ages 12 to 17)
 - ▶ Patient Health Questionnaire Modified for Adolescents (PHQA)
- ▶ Adult screening tools (ages 18 and older)
 - ▶ Patient Health Questionnaire (PHQ-2 and 9)
- ▶ Pregnant
 - ▶ Pregnancy and Postpartum:
 - ▶ Edinburgh Postnatal Depression Scale (EPDS)
- ▶ Geriatric
 - ▶ Geriatric Depression Scale (GDS)
- ▶ Dementia
 - ▶ Cornell Scale for Depression in Dementia (CSDD)

DSM-5 TR MDD Criteria

American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders TR, ed 5. Arlington, VA: American Psychiatric Association; 2022.

- ▶ ≥ 2 wk of depressed mood and/or loss of interest or pleasure that represents a change from previous level of function (self-report or observation)
- ▶ ≥ 3 neurovegetative symptoms also present on most days:
 - ▶ Change in appetite or weight
 - ▶ Insomnia or hypersomnia
 - ▶ Psychomotor agitation or retardation
 - ▶ Fatigue or loss of energy
 - ▶ Feelings of worthlessness or excessive guilt
 - ▶ Impaired concentration or indecisiveness
 - ▶ Recurrent thoughts of death or suicidal ideation/behavior
- ▶ Associated with significant distress or functional impairment

Psychotic Depression

- ▶ 20% of depressed patient in the US have psychotic features
 - ▶ Geriatric population is particularly prone
- ▶ Worse course and prognosis than depression without psychotic features
 - ▶ Greater risk of relapse
 - ▶ More persistent symptoms
 - ▶ Greater Morbidity and Mortality
 - ▶ Increased Suicide Risk
- ▶ Most common psychotic symptoms in depression
 - Delusional guilt ("God is punishing me for my sins" etc.)
 - Somatic delusions (Unfounded, unrealistic belief related to somatic symptom/illness)
 - Hallucinations especially auditory
 - Referential thinking (Ordinary things have special meanings)

Depression During Pregnancy

Maurer, D.M, et al: Depression: Screening and diagnosis. Am Fam Physician 2018;98:508-515.

- ▶ 10-20% of women have mood or anxiety disorders during pregnancy
- ▶ Pregnancy not protective for psychiatric illness
- ▶ Maintenance therapy indicated during pregnancy and post partum
 - ▶ Relationship with SSRIs and neonatal persistent pulmonary HTN unclear
- ▶ Increased risk for domestic violence

Post Partum Depression

- ▶ Depression that occurs after delivery
- ▶ Anytime after delivery but common between 4 weeks and 12 months
- ▶ ACOG recommends screen once prenatal and once 4-8 week post delivery
- ▶ Major depressive symptoms and anxiety with rumination
- ▶ May have thoughts of harming child

Post Partum Depression

American College of Obstetricians and Gynecologists. Treatment and management of mental health conditions during pregnancy and postpartum. Clinical Practice Guideline No. 5. Obstet Gynecol 2023;141:1262-66.

- ▶ Risk factors prior post partum depression, depression during pregnancy, neonatal complications, poor social support and high stressors
- ▶ Treatment - SSRI, reassurance, safety monitoring
 - ▶ Little risk with breast feeding
- ▶ New treatment – Zuranolone
 - ▶ Neuroactive steroid gamma-aminobutyric acid (GABA) A receptor positive modulator
 - ▶ Given for 14 days with or without SSRIs

Selph, S.S., McDonagh, M.S: Depression in children and adolescents: Evaluation and treatment. *AM Fam Physician* 2019;100: 609-617.

Seip, S.S., McDonagh, M.S. Depression in children and adolescents: Evaluation and treatment. *AM Fam Physician* 2019;100: 609-617.

Sekhon S, Patel J, Sapra A. Late-Life Depression. [Updated 2023 Jun 26]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan.

- [illegible]

Kovich, H, Kim, W, Quaste, AM: Pharmacologic treatment of depression. *Am Fam Physician*. 2023;107(2):173-181.

- ▶ Good documentation

Severity Determination & Treatment

Rush, AJ. Major depressive disorder in adults: Approach to initial management. UpToDate. 2025.

	PHQ- 9 Score	Clinical Features	Treatment
Mild	5-9	5 symptoms No prior and short symptom duration	Internet based to psychotherapy or antidepressants
Moderate	10-14	5 symptoms Longer duration, functional impairment, suicidality	Monotherapy, Combination Psychotherapy or antidepressants
Severe	15-19 mod severe 20 or higher	7-9 symptoms. Suicidal, marked functional impairment	Outpatient, partial hospital, or inpatient Combination tx.

Pharmacotherapy for Depression

30 million Americans receive a prescription for antidepressants each year

20 – 30 % drop out too early

25 – 50% stay on medications that are not working

Drug Type	Action	Names	Adverse
Selective serotonin reuptake inhibitor SSRI	Blocks reuptake of serotonin	Citalopram (Celexa) Escitalopram (Lexapro) Fluoxetine (Prozac) Sertraline (Zoloft) Paroxetine (Paxil) Fluvoxamine (Luvox)	Pregnancy risk C Nausea Insomnia Somnolence Weight gain Sexual dysfunction
Serotonin norepinephrine reuptake inhibitors SNRI	Blocks reuptake of serotonin and norepinephrine	Desvenlafaxine (Pristiq) Duloxetine (Cymbalta) Levomilnacipran (Fetzima) Venlafaxine (Effexor) Milnacipran (Savella)	Pregnancy risk C Nausea Dry mouth Dizziness Headache Excessive sweating
Tricyclic antidepressants	Blocks reuptake of serotonin and norepinephrine	Amitriptyline (Elavil) Amoxapine (Ascenden) Desipramine (Norpramin) Doxepin (Silenor) Imipramine (Tofranil) Nortriptyline (Pamelor) Protriptyline (Vivactil) Trimipramine (Surmontil)	Pregnancy risk C Blurred vision Constipation Dry mouth Drowsiness Drop in blood pressure Urine retention
Bupropion NDRI	Weakly blocks uptake of DA and NE	Bupropion (Wellbutrin) Mirtazapine (Remeron)	Pregnancy risk C Stimulation Lower seizure threshold
Serotonin Modulators	Varies	Trazodone (Desyrel) Vilazodone (Viibryd)	Varies

Sexual Side Effects

Jing E. Straw-Wilson K. Sexual dysfunction in selective serotonin reuptake inhibitors (SSRIs) and potential solutions: A narrative literature review. *Ment Health Clin.* 2016 Jun 29;4(5):191-196

- ▶ Least - fluoxetine or sertraline
- ▶ Worst - paroxetine
- ▶ If an SSRI is chosen, subjects should be maintained on the lowest effective dose
- ▶ Consider vilazodone (Viibryd) or vortioxetine (Trintellix)
- ▶ Switch to bupropion (Wellbutrin) or mirtazapine (Remeron)

Genetic Testing in Psychiatry

<https://www.psychiatry.org/news-room/apa-blogs/genetic-testing-to-improve-psychiatric-medication>

- ▶ APA Task Force for Novel Biomarkers and Treatments
- ▶ Claims of four major commercial companies offering genetic testing to improve choices and reduce trial and error
- ▶ The Task Force concluded there is not sufficient information to support the widespread use of pharmacogenetic testing in clinical practice

Assessment of Drug Metabolizing Enzymes

Santenna, C. et al. Drug metabolizing enzymes pharmacogenetic variation-informed antidepressant therapy approach for common mental disorders: A systematic review and meta-analysis. *Journal of Affective Disorders* 367 (2024) 832-844

- ▶ Systematic review and meta-analysis
- ▶ Genetic variation in drug-metabolizing enzymes
- ▶ Superior efficacy in the remission of symptoms for patients with depressive disorders
- ▶ Reduction in ADEs compared to usual treatment

MDD Guidelines

First-Line Antidepressants

▶ SSRIs

- ▶ Citalopram (Celexa)
- ▶ Escitalopram (Lexapro)
- ▶ Fluoxetine (Prozac)
- ▶ Sertraline (Zoloft)
- ▶ Paroxetine (Paxil)

▶ SNRI

- ▶ Duloxetine (Cymbalta)
- ▶ Levomilnacipran (Fetzima)
- ▶ Venlafaxine (Effexor)

▶ NDRI

- ▶ Bupropion (Wellbutrin)

Second-Line Antidepressants

- ▶ Mirtazapine (Remeron)
- ▶ Vilazodone HCl (Viibryd)
- ▶ Desvenlafaxine (Pristiq)

Preferred Agents

Ciprian A. Furukawa TA, Salanti G. et al. Comparative efficacy and acceptability of 21 antidepressant drugs for the acute treatment of adults with major depressive disorder: a systematic review and network meta-analysis. *Lancet.* 2018;391(10128):1357-1366

- ▶ More effective – escitalopram, mirtazapine, paroxetine, venlafaxine, amitriptyline
- ▶ Less discontinuation – citalopram, escitalopram, fluoxetine, sertraline, vortioxetine
- ▶ Fluoxetine (Prozac)
 - ▶ Less weight gain
 - ▶ Less likely to cause sexual side effects
- ▶ Sertraline (Zoloft)
 - ▶ Less likely to cause sexual side effects
 - ▶ Used in pregnancy

SSRI Adverse Effects

Kovich, H, Kim, W, Quastie, AM. Pharmacologic treatment of depression. Am Fam Physician. 2023;107(2):173-181.

- ▶ Common side effects
 - CNS – may resolve in a few days
 - Anxiety
 - Headache and dizziness resolve early
 - Activation – insomnia, restless, tremor
 - GI - nausea, diarrhea, heartburn
 - Sedation and fatigue
 - Sexual dysfunction - libido & orgasm up to 40%
 - Apathy
- ▶ Less common side effects
 - GI Bleeding – odd ratio 1.55
 - SIADH - incidence 0.06-2.6%
 - QT prolongation with citalopram, escitalopram, amitriptyline
 - Hepatotoxicity – 0.5-3%
 - Osteoporosis – hazard ratio 1.88
 - Weight gain – rate ratio 1.21 - 1.16
 - Long term use – falls HR 1.48%, fractures HR 1.30 % and all cause mortality HR 1.38%

SSRI Discontinuation Symptoms

Kovich, H, Kim, W, Quastie, AM. Pharmacologic treatment of depression. Am Fam Physician. 2023;107(2):173-181.

- Dizziness, headache
- Nausea and vomiting
- Fatigue, lethargy
- Flu-like symptoms (aches, chills)
- Myalgias, rhinorrhea, tremors
- Sensory disturbance, paresthesia
- Sleep disturbance
- Irritability, agitation, anxiety, dysphoria, crying spells
- Recommend tapering at least over 14 days but consider 25% reduction every month

Serotonin Syndrome

Simon LV, Torrico TJ, Keenaghan M. Serotonin Syndrome. [Updated 2024 Mar 2]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan.

- ▶ Increased serotonin in CNS
- ▶ All age including peds
- ▶ Initiation or increased dosage from 6-24 hrs. prior
- ▶ Medications
 - ▶ Trazadone, opioids, triptans, ergot, stimulants, dextromethorphan, metoclopramide, ondansetron, cyclobenzaprine, lithium, St. John's wort
- ▶ Variable presentations-mild to life threatening

Black Box Warning For Youth

- ▶ 2004 FDA Black Box Warning
- ▶ Based on meta-analysis showing 4% suicidal ideation antidepressants versus 2% on placebo
- ▶ For patients under the age of 18, not seen in adults
- ▶ Did reduce prescriptions for children and adolescents
- ▶ Important to carefully monitoring kids during treatment

Antidepressant Rx & Suicide

- ▶ Closely monitor depressed patients
- ▶ Remain vigilant for adverse events
 - ▶ Agitation/Insomnia
 - ▶ Anger/Irritability
 - ▶ Impulsive Behaviors
- ▶ Increase appointment frequency whenever initiating and/or changing antidepressant medication
 - ▶ Weekly for the first 2 - 4 weeks
 - ▶ Gradual reduction in visit frequency
 - ▶ i.e. biweekly → monthly

New Antidepressant – Esketamine

Vasili O. Esketamine for treatment-resistant depression: A review of clinical evidence (Review). Exp Ther Med. 2023 Jan 25;25(3):111

- ▶ N-methyl D-aspartate (NMDA) receptor blocker
- ▶ Derived from Ketamine
- ▶ Improvement in a few hours versus a few weeks
- ▶ Nasal spray once or twice a week along with SSRI
- ▶ Side effects

• Anxiety • Dizziness • Drowsiness • Feeling detached • Feeling inebriated • Increased blood pressure	• Nausea • Numbness • Sluggishness • Vomiting
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New Treatments

<https://www.aafp.org/pubs/afp-community-blog/entry/meet-the-newest-antidepressant-dextromethorphan-bupropion-availability.html>

- ▶ Dextromethorphan with Bupropion
 - ▶ Dextromethorphan affects NMDA, glutamate-1, and sigma-1 receptors in the brain, pathophysiology of depression,
 - ▶ Bupropion cytochrome P450 inhibition, boosts dextromethorphan CNS levels
 - ▶ Antidepressant effect starts in 2 weeks

Augmentation with Atypicals

- ▶ Atypical Antidepressants
 - ▶ Risperidone (Risperdal) (0.5 -2 mg one daily)
 - ▶ Olanzapine (Zyprexa) (5 – 20 mg once daily)
 - ▶ Ziprasidone (Geodon) (40-80 mg twice daily)
 - ▶ Quetiapine (Seroquel) (50-300 mg twice daily)
 - ▶ Aripiprazole (Abilify) (2 -15 mg once daily)
- ▶ Disadvantages:
 - ▶ Cost
 - ▶ Metabolic issues, EPS/TD/NMS
- ▶ Advantages:
 - ▶ May help manage anxiety and agitation
 - ▶ Significant improvement in depressive and anxious symptoms with relatively early onset of benefits (Abilify and Seroquel)

Treatment Sequencing Strategies

- ▶ 30-40% of depressed patients will not respond to an initial adequate trial (>4-6 weeks)
 - ▶ RESPONSE = <50% IMPROVEMENT using a validated tool such as PHQ-9
- ▶ If 1st failed trial is SSRI:
 - ▶ Try 2nd SSRI (40-50% chance of response)
 - ▶ Or Switch to SNRI
- ▶ If 1st and 2nd failed trials were SSRIs, try a SNRI or NDRI
- ▶ If 1st failed trial is SNRI, try SSRI next
- ▶ If both SSRI and SNRI failed, consider 3rd Line

Switching or Stopping

Horwitz, MA and Taylor, D. Tapering SSRI to mitigate withdrawal symptoms. Lancet Psych 2019; 6:536-548.

- ▶ Switching
 - ▶ Direct switch – within a class or between SSRI and SNRI
 - ▶ Cross taper – within a class or out of a class
 - ▶ Discontinuation with wash-out – two week washout from MAOIs (min risk of SS)
- ▶ Stopping
 - ▶ Reduction over months – 25% every month
 - ▶ Reduce withdrawal symptoms
 - ▶ Lower than minimal therapeutic doses

Optimizing Outcome in Depression

- With pharmacological treatment, recurrence rates are substantial
 - 50% after 1 episode
 - 70% after 2 episodes
 - 90% after 3 episodes
- Medication should be continued for at least 9-12 months after response achieved (>50% reduction from baseline)
- Long-term medication recommended if 3 or more distinct episodes in 5 years

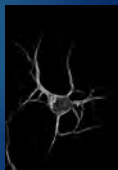
Psychotic Depression Treatment Guidelines

- ▶ ECT: Well Established as First Line Therapy
 - ▶ Imminent risk
- ▶ Must use Antidepressant plus Atypical Antipsychotic
- ▶ TCA plus Typical Antipsychotic

Psychedelics for Depression

NH How psychedelic drugs may help with depression. <https://www.nih.gov/news-events/nih-research-matters/how-psychedelic-drugs-may-help-depression>. March 14, 2023

- ▶ Psilocybin and MDMA (ecstasy)
- ▶ Tested for treatment-resistant depression and post-traumatic stress disorder
- ▶ These drugs encourage plasticity by binding to the 5-hydroxytryptamine 2A receptor (5-HT2AR)
- ▶ 5-HT2ARs could be found inside neurons as well as on their surface
- ▶ Compounds able to cross into the neurons and bind to these inner receptors induced the formation of dendritic spines



Psychotherapy for Depression

Role of Psychotherapy

Rush, AJ. Major depressive disorder in adults: Approach to initial management. UpToDate. 2025.

- Effective for mild, moderate, and severe depression
- More durable than medication
- 1 year relapse rate 25% vs. 50% in med responders
- Psychotherapy very effective when depressive symptoms emerge in the context of acute stressor, loss, and/or trauma

First-Line Psychotherapies for Depression

SIMON, G. E.; MOISE, N.; MOHR, D. C. Management of depression in adults: A review. JAMA: Journal of the American Medical Association. [e-]. V. 332, n. 2, p. 141-152, 2024.

Psychotherapy	Key elements	Other considerations	Improvement vs usual care (95% CI)
CBT	Identifying and challenging or interrupting negative thoughts	Often effective for anxiety symptoms	0.67 (0.56-0.79)
Behavioral activation	Increasing the engagement in activities that are pleasurable or bring a sense of accomplishment	Effective for anxiety symptoms	0.73 (0.52-0.95)
Problem-solving therapy	Identifying problems and stressors and developing strategies to manage them	Effective for anxiety symptoms; versions for older adults	0.64 (0.40-0.88)
Interpersonal therapy	Focuses on improving quality of interpersonal relations and interactions	Useful for unresolved grief, social isolation, and difficult life transitions	0.54 (0.32-0.76)
Psychodynamic therapy	Explores how unconscious motivations, often originating in childhood experiences, affect emotions, cognitions, and behaviors	Effective for anxiety disorders	0.50 (0.20-0.81)
Mindfulness-based therapy	Uses meditation to bring awareness to feelings, thoughts, and situations to reduce automatic responses	May be effective for patients who have not responded to other psychotherapies	0.69 (0.45-0.93)

Transcranial Magnetic Stimulation (TMS) Treatment for Depression

Peterson, T. The Clinical TMS Society Consensus Review and Treatment Recommendations for TMS Therapy for Major Depressive Disorder. *Brain Stimul.* 2016 May-Jun; 9(3): 336-346.

- ▶ Prefrontal Transcranial Magnetic Stimulation (TMS) therapy repeated daily over 4–6 weeks
- ▶ Major Depressive Disorder in adults who have not responded to prior antidepressant
- ▶ Daily left prefrontal TMS has substantial evidence of efficacy and safety

Bright Light Therapy

Penders, TM, et al. Bright Light Therapy as Augmentation of Pharmacotherapy for Treatment of Depression: A Systematic Review and Meta-Analysis. *Psychiatry*. 2015.

- ▶ Bright light therapy $\geq 5,000$ lux for ≥ 30 minutes and compared to SSRI treatment
- ▶ Ten studies involving 458 patients using bright light therapy augmentation versus antidepressant pharmacotherapy alone.
- ▶ No seasonal pattern
- ▶ Bright light showed efficacy as augmentation to standard antidepressant pharmacotherapy major depressive disorder and bipolar depression

Adjuncts to Treatment

Alfaro, R. et al. Folate as adjunct therapy to SSRI/SNRI for major depressive disorder: Systematic review & meta-analysis. *Complementary Therapies in Medicine*. Volume 61, September 2021, 102770.
<https://www.psychiatrist.com/view/augmentation-strategies-for-treatment-resistant-depression>
Rodríguez, T. Prescription digital therapeutics for mental health: A new era in psychiatry. *Psych Advisor*. Oct 15, 2024.

- ▶ Psychoeducation
- ▶ Exercise
- ▶ Mind-body interventions – yoga, tai chi, relaxation
- ▶ FDA authorized digital therapeutics
 - ▶ Rejoyn - internet based psychotherapy for depression
 - ▶ MamaLift Plus – post-partum depression

TABLE. Other Non-FDA-Approved Augmentation Strategies
Anti-inflammatory drugs such as selective cyclooxygenase inhibitors, glucocorticoids
Minocycline
Botulinum toxin
D-cycloserine
Exercise
Methylglutamate
n-3 fatty acids
Pimavanserin
S-adenosyl-L-methionine
Statins
Stimulants or stimulant-like drugs such as modafinil or pramipexole

Treatment Resistant Depression

Voneskos D, Daskalakis JJ, Blumberger DM. Management of Treatment-Resistant Depression: Challenges and Strategies. *Neuropsychiatr Dis Treat.* 2020 Jan 21;16:221-234.

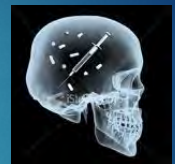
- ▶ Definition - inadequate response to at least 2 trials of antidepressants
- ▶ Pharmacological augmentation strategies - lithium, triiodothyronine, second-generation antipsychotics
- ▶ Somatic therapies - electroconvulsive therapy, repetitive transcranial magnetic stimulation, vagal nerve stimulation and deep brain stimulation
- ▶ Novel therapeutics - ketamine, psilocybin, anti-inflammatories

Patient Education Provide Important Resources

- 988
- Community resources
 - Mobile crisis
 - Crisis care
 - Respite services
 - Living rooms models
- Web resources
 - National Institute on Mental Illness (NIMH)
 - Substance Abuse and Mental Illness Services Administration (SAMHSA)
 - Depression and Bipolar Support Alliance (DBSA)
 - National Alliance on Mental Illness (NAMI)

When to Refer to Psychiatry

- Suicidal/homicidal thoughts and intent
- History of mania
- Psychosis
- Treatment in pregnancy?
- Treatment resistance



Summary

- Psychotherapy is effective and more durable than medication for depression
- Remission and early, preferred, is the goal of treatment
- Use rating scales to gauge response

Contact Information

Leslie Zun, MD
leszun@gmail.com
773 426 3763

SELF EVALUATION

Depression: Diagnosis and Treatment

1. What is not one of the diagnostic criteria for Major Depressive Disorder (MDD)?
 - a. Dysthymia
 - b. Recurrent thoughts of death
 - c. Fatigue
 - d. Loss of weight
2. What is a common risk factor for depression?
 - a. Marriage
 - b. Personality disorder
 - c. Low educational status
 - d. New job
 - e. Graduation from school
3. How common is depression in women?
 - a. 1 in 4
 - b. 1 in 5
 - c. 1 in 8
 - d. 1 in 10
4. What screening tools are commonly used to assess depression in the adolescent population?
 - a. PHQ-2
 - b. PHQ-9
 - c. Edinburgh
 - d. PHQ-A
5. What is considered a second line pharmacological treatment for depression?
 - a. Mirtazapine
 - b. Levomilnacipran
 - c. Venlafaxine
 - d. Bupropion
6. What is a common side effect of SSRIs?
 - a. GI bleeding
 - b. SIADH
 - c. QT prolongation
 - d. Sexual dysfunction

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