

# ALCOHOL USE AND SURGICAL HEALTH

QUALITATIVE FINDINGS FROM SURGICAL  
PATIENTS AND HEALTH CARE PROVIDERS

Anne Fernandez, PhD

Assistant Professor, Department of Psychiatry

Michigan Medicine

Addiction Health Services Research  
Conference

October 17<sup>th</sup>, 2019



# ACKNOWLEDGEMENTS

## FUNDING SUPPORT

- K23 (NIAAA 023869)
- No conflicts of interest to declare

## ACKNOWLEDGEMENTS

- Mentors: Fred Blow; Brian Borsari, Peter Friedmann, Michael Mello, Omar Galarraga
- Project Staff: Rae Sakakibara, Becky Clive, Lyndsay Chapman
- Colleagues and Collaborators: Arden Morris, Scott Winder, and Jessica Mellinger

## RISKY ALCOHOL USE IN ELECTIVE SURGICAL PATIENTS

- Alcohol use (> 2 drinks/day) is one of top 10 surgical risk factors in the United States
- Estimates range from 8% - 88.5% across studies  
(Harris, A. H. S., et al., 2008)
  - Highest otolaryngology and thoracic surgery

## ALCOHOL AND SURGERY: WHAT'S THE PROBLEM?

Post-operative  
Alcohol withdrawal

Complicates  
anesthesia and pain  
control

Pre-existing alcohol  
problems predict  
post-operative  
opioid misuse

Increases  
postoperative  
complications

Two fold increase  
in post-operative  
mortality

(K.A. Bradley et al., 2012; K.A. Bradley et al., 2011; Eliassen et al., 2013; A. Lau et al., 2009; Oppedal et al., 2013; Rubinsky et al., 2012; C. D. Spies et al., 2004; Tonnesen & Kehlet, 1999; Tonnesen et al., 1992; Von Dossow et al., 2004)

## ALCOHOL-RELATED SURGICAL COMPLICATIONS ARE POTENTIALLY PREVENTABLE

**Pre-operative** alcohol intervention among patients with alcohol dependence (72 grams alcohol/day)

- reduced likelihood of complications (RR = 0.62, 95% CI 0.40 to 0.96)
- increased alcohol 'quit rate' (RR 8.22, 95% CI 1.67 to 40.44)

Egholm, 2018, Cochrane Review

## 'REAL WORLD' CARE: GAPS IN OUR UNDERSTANDING

1. Has any of this research made it into practice?
2. Are patients and surgical health care providers in the US aware that alcohol risk impacts surgical complications?
3. What are the facilitators and barriers of alcohol screening and intervention prior to surgery?
4. There is no virtually no research literature on pre-operative alcohol screening and intervention, so qualitative inquiry is a good place to start

**ALCOHOL SCREENING AND  
PREOPERATIVE INTERVENTION  
RESEARCH (ASPIRE)**

K23 AA023869

# ALCOHOL SCREENING AND PREOPERATIVE INTERVENTION RESEARCH (ASPIRE)

## Aim 1

- Qualitative study to identify screening and intervention practices as well as needs and barriers in a large academic health system in the Midwestern US (N = 29)

## Aim 2

- Develop and refine intervention through an open-trial (N = 12)

## Aim 3

- Conduct a randomized pilot trial (N = 80)



## QUALITATIVE METHODS

- One-on-one Semi-structured Interviews
- Iterative Data Collection Process
- Thematic analysis, Coding, and Data Reduction
  - Triangulation and validity checks with members

## PARTICIPANTS

- Elective surgical patients recruited from pre-operative anesthesia clinic (N = 20)
  - 25% female, AUDIT-C score ranged from 4 - 11
- Providers recruited by e-mail, targeting key clinic leaders (N = 9)
  - 44% female, surgeons and advance practice professionals
  - Range of surgical specialty areas

## DOMAINS OF INQUIRY

- What do patients and providers think/know about alcohol use, health risks, and its connection with surgical outcomes?
- What are the current practices, facilitators, and barriers to alcohol screening and intervention?
- What do patients and providers need and want in terms of enhancing alcohol-related surgical care?

**THEMES/FINDINGS**

## LOW AWARENESS OF ALCOHOL-RELATED SURGICAL HEALTH RISK

### PATIENT

*Now did you see the news this morning? They did have a big blurb on here than alcohol and...they're saying...doctors are saying alcohol is now good for your health.*

### PROVIDER

*You could probably tell the healing difference between the, you know, few cigarettes per day person and a non-smoker. But someone drinks six pack of beer per day, it may not actually affect much of anything....*

## ALCOHOL USE SCREENING

*Provider: “tobacco is brought to our attention because it is part of the intake questionnaire that the patients fill out. Whereas, I don’t even know...I feel like maybe alcohol use is in there but.... not in a way that comes out as clearly. I always know if someone reports being a smoker. It’s not even all that clear to me if I know whether they report their alcohol use.”*

## PATIENTS AND ALCOHOL REPORTING

*Patient “I actually I don't mind disclosing that [alcohol use] to the doctor because if there's an emergency or something, I'd rather they know how my lifestyle is and my health and do something about it or have an idea or to solve an issue or situation”*

*Patient “If you ask me how much I drank...I drink, I might say I have a glass of wine a day where in fact, I have maybe 2 or 3, so you know that's sort of...I think human nature to kinda be a little not on the mark with some of things”*

## ALCOHOL INTERVENTION, OR LACK THEREOF

*Patient: "...he [surgeon] didn't discuss drinking and alcohol dependency with me, but my principal care physician has. We've had two...two discussions."*

*Patient: "I figured if...if there was something really dire that they would tell me ahead of time. You know, say, Oh, no. You gotta stop [alcohol use] for a week. You gotta stop. You have to get it all out of your system for a month or something like that. ..."*



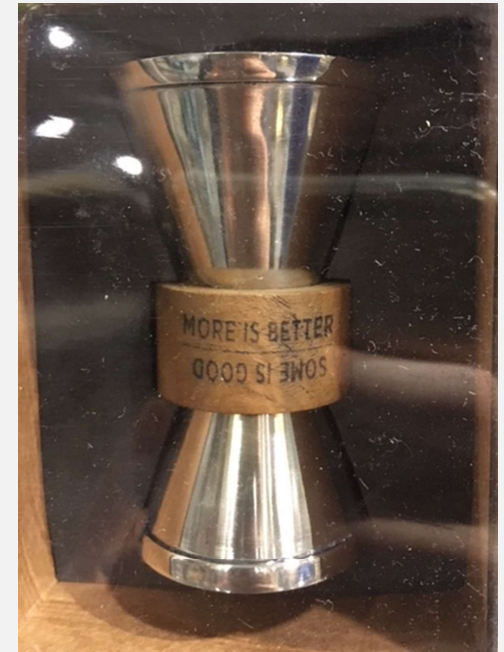
## PROVIDERS VIEW ALCOHOL INTERVENTION AS A LOW PRIORITY

*Provider "...So if you gave me some amount of money and it was to be used for preoperative health optimization, I would probably spend it on things like smoking, obesity, diabetes....And I would not spend it on alcohol."*

WHAT CAN WE DO?

## NEEDS: EDUCATION!!

- First educate providers and institutions so they can educate patients
- Disseminate research findings
- Create clear concise recommendations for providers to give patients
- “De-normalize” heavy drinking from a HEALTH perspective
- Health focus can \*hopefully\* reduce stigma



## IMPROVE ALCOHOL SCREENING

- Use validated screening tools
- Use alcohol biomarkers
- Make a hard stop in electronic health record, just like tobacco use.
- Automate medical chart review for alcohol risks??
- “screening with a reason”

Provider: *“But I think giving them [the patient] the reason, it’s not like I want to know this because I’m being nosy. It’s like, there’s a reason I’m asking you. So, I feel like that’s maybe what’s missed.”*

## ALCOHOL INTERVENTION NEEDS

- Something is better than nothing
- Provide patients with written information and clear recommendations for alcohol use prior to surgery
- Collaborate with addiction consult services (if available)
- Implement empirically-supported interventions
- Use other pre-habilitation as a model
  - There are successful programs for tobacco, nutrition, and exercise to promote surgical health

## NEXT STEPS

- Randomized clinical pilot trial (N = 80)
  - Two conditions, health coaching vs. brief advice
  - Current progress (N = 10)
  - Includes alcohol use biomarkers on day of surgery

QUESTIONS