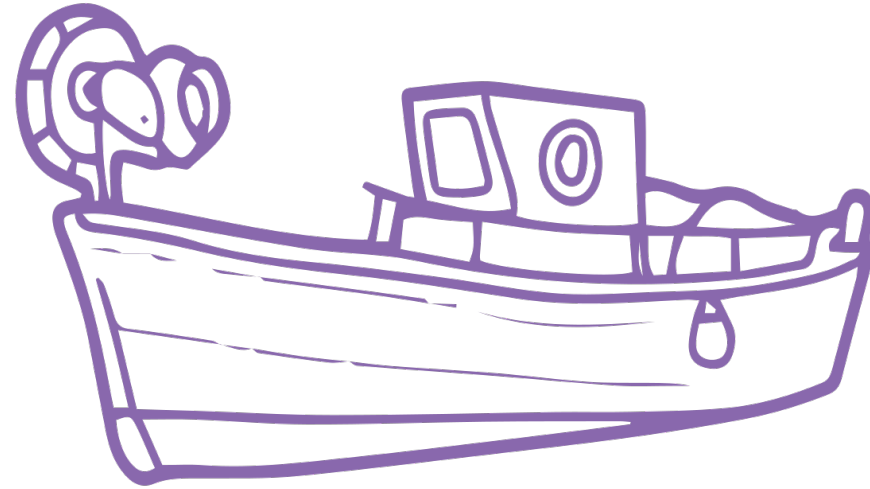
A photograph of a natural rock archway in a cliff, looking out onto a body of water. The arch is formed by grey, layered rock. Lush green trees and foliage are growing on the cliff faces on either side of the arch. The water in the distance is a vibrant blue-green color. The sky is overcast and grey.

MOQC JUNE BIANNUAL MEETING 2023

Welcome

Keli DeVries, LMSW



Agenda

Morning Session 10 am		
10:00-10:30	Welcome and Overview POQC Update Steering Committee Update Equity Task Force Update	Keli DeVries, LMSW POQC Members Dawn Severson, MD Sharon Kim
10:30-11:15	MOQC Practice Performance & Discussion	Jennifer Griggs, MD, MPH
11:15-11:25	Break	
11:25-11:35	The Voice of the Caregiver	
11:35-12:35	Keynote Speaker Thomas LeBlanc, MD, MA, MHS Associate Professor of Medicine Duke Cancer Institute	
Lunch 12:35 pm		
12:35-1:05	Break for lunch	
Afternoon Session 1:05 pm		
1:05-1:30	Palliative Care and End-of-Life Task Force Update Palliative Radiation Pathways	Tom O'Neil, MD Jennifer Griggs, MD, MPH
1:30-2:25	Harnessing Patient-Reported Outcomes for Symptom Management and Decision Making <ul style="list-style-type: none"> PROs Initiative Update 	Steven Chang, MD Samantha Tam, MD Ashley Bowen, MS, RD, CHC
2:25-2:35	Break	
2:35-3:05	Palliative Care Access & Referral Patterns: A Tale of Two Surveys	Andrew Russell, MD, MPH
3:05-3:50	Responding to Patient Needs – Embedding Pharmacists in Oncology Practices with POEM	Emily Mackler, PharmD, BCOP Mark Wagner, PharmD, BCOP Katie Sias, Pharm D, BCOP
Close 3:50 pm		
3:50-4:00	Closing Items	Keli DeVries, LMSW

Meeting Details

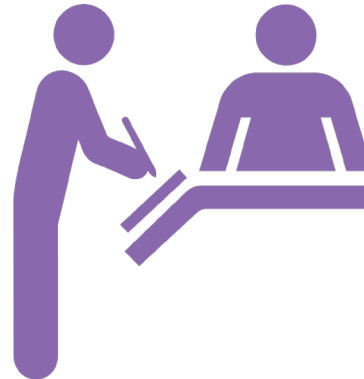


**WIFI Network:
The_H_Hotel**

**Lactation + Prayer Rooms Available
Restroom locations**



Masks are available



Registration desk staffed all day

Confidentiality Reminder

Taking pictures/videos of data slides is prohibited. This is a confidential professional peer review and quality assurance document of the Michigan Oncology Quality Collaborative.

Unauthorized disclosure or duplication is absolutely prohibited. It is protected from disclosure pursuant to the provisions of Michigan Statutes MCL 333.20175; MCL 333.21513; MCL 333.21515; MCL 331.531; MCL 331.532; MCL.331.533 or such other statutes as may be applicable.



360 Evaluation

MOQC has great value for oncology in Michigan in bringing together practices across the state, sharing data across the country, as well as presenting the patient care perspective in oncology treatments, palliative care and comfort care.

Physician

MOQC lives up to its mission - improvement of quality of care for patients. The intent is genuine. MOQC listens to the participating practices and offers valuable content and resources to achieve improvement in quality.

Physician

I enjoy collaborating with other practices to look at best workflows. I appreciate MOQC's focus on equity and how we can all make sure patients receive high quality care.

Practice Manager

MOQC's biggest strength is the presentation of data from all practices. It is helpful being able to compare how we are doing and find areas of improvements.

Pharmacist

I appreciate the care and focus that MOQC provides to patients and caregivers. MOQC holds physicians and practices to a higher standard for patient care.

POQC Member



Office of Interprofessional Continuing Professional Development



Disclosure Statement

As a Jointly Accredited Provider of Interprofessional Continuing Education Credit, the National Center for Interprofessional Practice and Education Office of Interprofessional Continuing Professional Development (OICPD) complies with the ACCME and Joint Accreditors' Standards for Integrity and Independence in Accredited Continuing Education. The National Center has a conflict of interest policy that requires all individuals involved in the development, planning, implementation, peer review and/or evaluation of an activity to disclose any financial relationships with ineligible companies. The National Center performs a thorough review of the content of the accredited activity to ensure that any financial relationships have no influence on the content of accredited activities. All potential conflicts of interest that arise based on these financial relationships are mitigated prior to the accredited activity.

Office of Interprofessional Continuing Professional Development



Disclosures

The following planners and presenters have disclosed a financial relationship with an ineligible company:

- Thomas LeBlanc -
 - Speaker's bureau and consultant with AbbVie/Genentech;
 - Speaker's bureau with Agios and BMS;
 - Speaker's bureau, research funding and consultant with BMS/Celgene;
 - Research funding and consultant with AstraZeneca, CareVive, GSK;
 - Research funding from Deverra Therapeutics, Jazz Pharmaceuticals, Seattle Genetics, Janssen;
 - Consultant with Astellas, BlueNote, Flatiron, Novartis, Pfizer;
 - Honorarium from Incyte
- Emily Mackler -
 - Grant from AstraZeneca
- Mark Wagner
 - Speaker's bureau with AstraZeneca, Merck, Mitati, and Genentech
- Samantha Tam
 - Grant from Genentech

These planners and presenters have attested that these financial relationships in no way affects their planning or delivery of content in this accredited activity.

There are no conflicts of interest or financial relationships with an ineligible company that have been disclosed by the rest of the planners and presenters of this learning activity.

Office of Interprofessional Continuing Professional Development



In support of improving patient care, this activity is planned and implemented by The National Center for Interprofessional Practice and Education Office of Interprofessional Continuing Professional Development (OICPD) and the Michigan Oncology Quality Consortium. The National Center OICPD is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Physicians: The National Center OICPD designates this activity for a maximum of **5.25 AMA PRA Category 1 Credit(s)**™. Physicians should only claim credit commensurate with their participation.

Nurses: Participants will be awarded up to **5.25** contact hours of credit for attendance at this activity.

Nurse Practitioners: The American Academy of Nurse Practitioners Certification Program (AANPCP) accepts credit from organizations accredited by the ACCME and ANCC.

Pharmacists and Pharmacy Technicians: This activity is approved for **5.25** contact hours (.525 CEU)

Social Workers: As a Jointly Accredited Organization, the National Center OICPD is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. The National Center OICPD maintains responsibility for this course. Social workers completing this course receive up to **5.25** continuing education credits.

Athletic Trainers: The National Center OICPD (JA#: 4008105) is approved by the Board of Certification, Inc. to provide continuing education to Athletic Trainers (ATs). This program is eligible for a maximum of **5.25** Category A hours/CEUs. ATs should claim only those hours actually spent in the educational program.

IPCE: This activity was planned by and for the healthcare team, and learners will receive **5.25** Interprofessional Continuing Education (IPCE) credits for learning and change



MOQC Resources

- MOQC has a variety of free resources for your patients, caregivers, and practice sites
- Virtual and printed formats available
- <https://www.moqc.org/resources/>



MOTIVATIONAL INTERVIEWING

"Motivational Interviewing is not a technique for tricking people into doing what they do not want to do. Rather, it is a skillful clinical style for eliciting from patients their own good motivations for making behavior changes in the interest of their own health."

"If your consultation time is limited, you are better off asking patients why they would want to make a change and how they might do it rather than telling them that they should."

"A patient who is active in the consultations, think why and how of change, is more likely to do some afterward."

M. L. in Health Care, S. Rolnick, W. Miller, C.

Use these motivational phrases

- What do you like about smoking (or tobacco)?
- What do you want to do about your smoking?
- How would being smoke-free impact your life?
- What's worrying you about your tobacco use?
- What are the most important reasons you want to quit?
- What benefits do you get from smoking or tobacco?
- How would your life be different if you did quit?
- If you decide to quit tobacco, how would you do it?
- How important is it for you to quit smoking?
- What are you thinking about smoking at the moment?
- Suppose that you continue on with not making your smoking. What do you think might happen?
- What advice would you give yourself about smoking?
- What might it take for you to make a decision to quit?

Avoid these frustration questions:

- Why don't you want to quit?
- Why can't you quit?
- Why haven't you quit?
- Why do you need to smoke?

MOQC MICHIGAN ONCOLOGY QUALITY CONSORTIUM

OLANZAPINE

WHY AM I GETTING A PRESCRIPTION FOR OLANZAPINE?

The cancer treatment that you will be getting can cause nausea or vomiting. We do everything we can to reduce this side effect. Olanzapine is highly effective, even in small doses, at decreasing nausea and vomiting and is an important part of your care.



WHAT SHOULD I EXPECT WHEN I GO TO THE PHARMACY?

Olanzapine was originally approved for people with certain mental illness. The pharmacist may tell you about the original reason the drug was used when you drop off your prescription or pick up your medication. We want you to be prepared for this possibility. You may wish to tell the pharmacist why you have been prescribed olanzapine and that your cancer team is prescribing olanzapine for a completely different reason. This original approval for the medication does not make your insurance or your medical record think you have the certain mental illness when you get the prescription.



WHAT ABOUT THE SIDE EFFECTS?

Nearly all the side effects listed for this medication occur in people who are on higher doses of the medicine and who take the medicine every day for many years. People who take olanzapine for chemotherapy are not likely to get side effects other than tiredness. It is often recommended that you take it in the evening because of this.



IS OLANZAPINE COVERED BY MY INSURANCE?

This medication is much less expensive than other anti-nausea drugs. Most insurance plans cover it on your own if you pay the copay.



THESE SITES MAY BE HELPFUL TO LEARN MORE ABOUT OLANZAPINE

National Cancer Institute
American Cancer Society
National Comprehensive Cancer Network

MOQC MICHIGAN ONCOLOGY QUALITY CONSORTIUM

POQC: PATIENT AND CAREGIVER ONCOLOGY QUALITY COUNCIL PRACTICE HANDOUT

BACKGROUND

The Michigan Oncology Quality Consortium (MOQC) is a group formed in 2009 whose goal is to improve the quality of care for patients with cancer across the state. MOQC is supported by Blue Cross Blue Shield of Michigan (BCBSM) and work is coordinated at the University of Michigan. MOQC focuses on the care of people with cancer, especially those who receive chemotherapy, with or without insurance. MOQC improves care by using data gathered as part of the national Quality Oncology Practice Initiative (QOPI®) program, targeting areas of care that need to get better, and working with medical and oncologic oncologists and their teams to make changes in their practices so that care improves.

MOQC formed POQC to increase the role of patients, their families or caregivers in the work of our Consortium. POQC members contribute to the vision and purpose of MOQC by guiding the development of new projects and sharing our work with the community and other interested groups.

POQC CONTRIBUTIONS

POQC Members are able to:

- Share stories of how they have faced challenges in accessing the health care system, and ideas for how systems can be created to better serve patients and loved ones
- Provide the voice of patients and caregivers in focus groups or for patient-facing materials review

POQC RECRUITMENT

In addition to providing support to MOQC and to MOQC practices, POQC is always looking to expand. We are very interested in having patients and caregivers who represent a broader patient voice, including:

- Patients and caregivers from minority groups
- Patients currently receiving treatment; caregivers of patients currently receiving treatment
- Patients with varied diagnosis ages; caregivers of patients with varied diagnosis ages
- Patients and caregivers who are medically underserved

Members of MOQC and/or POQC will reach out to patients or caregivers of interest and schedule one on one meetings to discuss participation.

MOQC provides hotel rooms to POQC members for in-person meetings, when appropriate, reimbursement for mileage costs to in-person meetings, and payment for time spent in MOQC Meetings.

CONTACT

Vanessa Aron, Project Manager
varon@moqc.org • 734-615-1796

MOQC MICHIGAN ONCOLOGY QUALITY CONSORTIUM

MOQC Resources

MOQC has resources available in these languages:

- Arabic
- Chinese (Mandarin)
- English
- Spanish
- Vietnamese

What other languages would be helpful for your patients and caregivers?



Submit your response:
slido.com
#3241 511

MOQC Resources

- Measure videos
- Measure information sheets



115: NK1 Receptor Antagonist & Olanzapine Given as Part of a 4-Drug Regimen with High Emetic Risk Chemotherapy



What is this measure?

- High emetic risk chemotherapy is defined as greater than 90% frequency of emesis (vomiting) from chemotherapy in the absence of effective preventative measures
- Goals of this measure include:
 - Increasing the use of guideline-concordant prescribing of antiemetic therapy
 - Increasing the use of olanzapine
 - Reduce unplanned medical care or hospitalization
- 4-Drug Antiemetic Regimen For High Emetic Risk Chemotherapy
 - Neurokinin-1 Receptor Antagonists (NK1RA)
 - 5HT3 Receptor Antagonists
- Resources:
 - ASCO Guidelines: <https://ascopubs.org/doi/10.1200/JCO.2015.33.1515>
 - NCCN Guidelines: <https://pubmed.ncbi.nlm.nih.gov/27111111/>

Why is this measure important?

- Chemotherapy-induced nausea and vomiting (CINV)
- If not adequately controlled, CINV can add to patient's quality of life
- Appropriate use of antiemetics in patients receiving chemotherapy decreases unscheduled medical care, and improves patient quality of life

What is included in this measure?

- Determine if patient received chemotherapy
 - Chemotherapy administered, date of chemotherapy during cycle 1 of initial chemotherapy treatment
- Determine emetic risk of chemotherapy received
- Determine what antiemetics were administered in cycle 1 of initial treatment

Where can abstractors find this information?

- Medication Administration Record (MAR)
- Chemotherapy Flowsheet
- Medication List or Pharmacy Records
- Abstractors may use the search option in some EMRs

Duration on Hospice:

126b: >7 days before death
126c: >30 days before death



Why do we want longer duration on hospice?

- Hospice is appropriate for patients with advanced terminal illness who have a life expectancy of ≤6 months
- Large evidence base supports advantages of early hospice enrollment
- Many patients enroll in hospice for 3 days or less before their death
- Utilizing hospice longer provides more benefit to patients and caregivers

For whom could duration on hospice be collected?

- All patients with a cancer diagnosis who died on hospice

Where can duration on hospice be documented?

- Oncologist's note
- Hospice provider/facility note in EMR
- EMR tab "Documents"
- EMR tab "Referrals"
- "Search" option

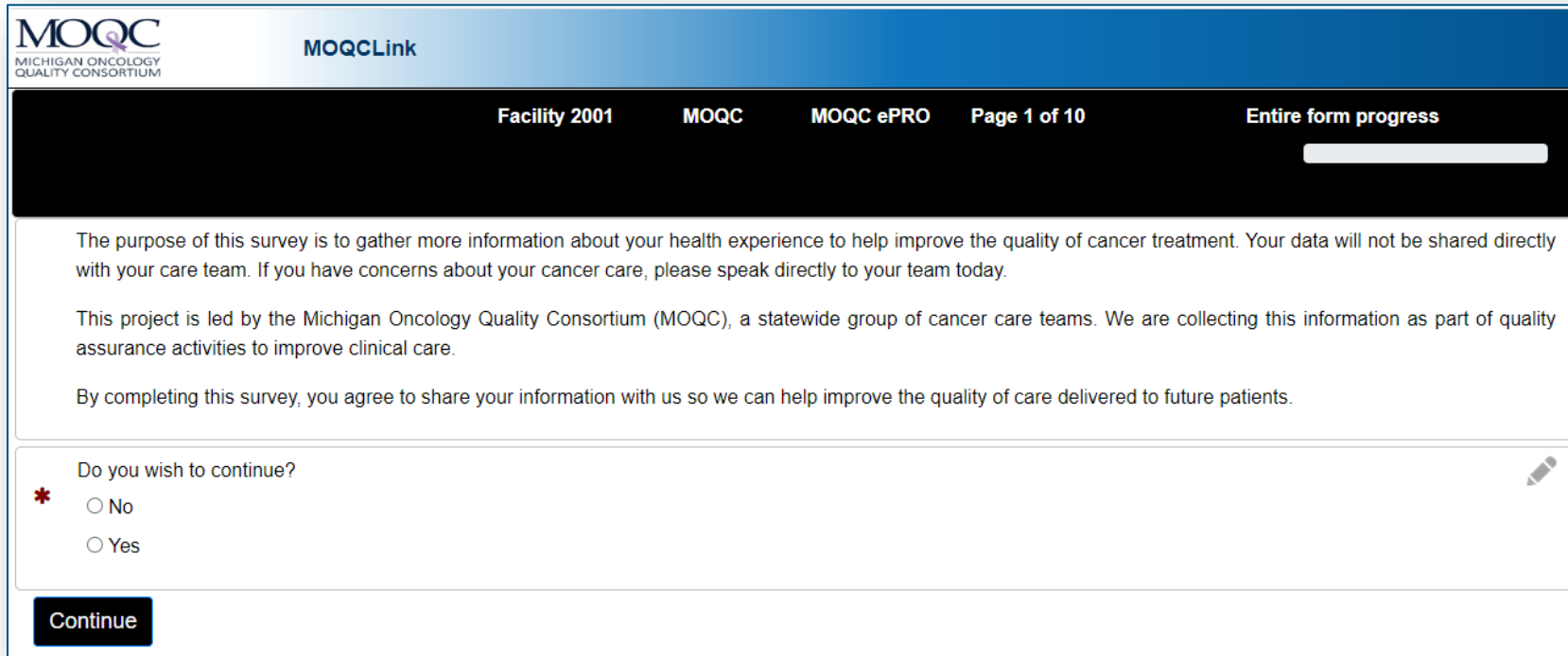
What are the common challenges documenting this measure?

- Difficulty in locating a hospice referral in EMR
- No uniform hospice documentation
- Lack of "search" option in certain EMRs

QUESTIONS?

<https://moqc.org/>
moqc@moqc.org

MOQC Patient Reported Outcomes Testing



The screenshot shows the MOQC Patient Reported Outcomes Testing survey form. The header includes the MOQC logo (Michigan Oncology Quality Consortium) and the title "MOQCLink". Below the header, there is a navigation bar with links for "Facility 2001", "MOQC", "MOQC ePRO", "Page 1 of 10", and "Entire form progress". The main content area contains the following text:

The purpose of this survey is to gather more information about your health experience to help improve the quality of cancer treatment. Your data will not be shared directly with your care team. If you have concerns about your cancer care, please speak directly to your team today.

This project is led by the Michigan Oncology Quality Consortium (MOQC), a statewide group of cancer care teams. We are collecting this information as part of quality assurance activities to improve clinical care.

By completing this survey, you agree to share your information with us so we can help improve the quality of care delivered to future patients.

Do you wish to continue?

* ☐ No ☐ Yes

Continue

Check out the
PROs test site
and tablets
at the MOQC
resources table!

MOQC Update: Transitions



Ermili Potka



Manlan Liu

MOQC Update: New Team Members



Jennifer Broadhurst

Clinical Data Abstractor

BSN Northern Illinois University

Outpatient Infusion Nurse

Oncology Certified Nurse 2020

Soon to be Certified Tumor Registrar

“I am excited to join MOQC because I believe in the mission!”



MOQC Update: New Team Members



Deana Jansa (she/her)

Clinical Data Abstractor

BSN University of Wisconsin-Madison

MHA University of Phoenix

Oncology care experience

Research and quality improvement

"I am thrilled to join MOQC and help improve care for patients!"

MOQC Update: New Team Members



Eric Voisine

Data Analyst/Visualization Specialist

MS in Data Science and Analytics

Michigan State University

Experience as IT Auditor and Data Engineer

Enabling access to and understanding data

“I’m excited to work with a team of compassionate people to learn as much as I can.”

2022 Practice Award Winners

Cancer & Hematology Centers of Western Michigan

Jerome Seid, Great Lakes Cancer Management Specialists

Marcia Rau, Covenant

Amy Hawkins, Henry Ford Allegiance

Stacy Lattin, MHP Oakland Medical Group

Kevin Brader, University of Michigan Health West

Kelly Bristow, Henry Ford Health

Newland Medical Associates

Laura Johnson, Munson Healthcare

Spectrum Health

Bryan Schneider, Michigan Medicine Rogel Cancer Center

Jennifer Metevia, Oncology Hematology Associates of Saginaw Valley

Marcia Rau & Jennifer Blakeslee-Wilber, Covenant

Bronson Cancer Center

Ayham Ashkar, MHP Oakland Medical Group

Beaumont Gynecologic Oncology

Melissa Steller, Sparrow Health System



Growth Mindset



Trust & Integrity



Collaboration



Compassion



2023 Award Winners!



University of Michigan Health West Gyn Onc

Megan Beaudrie, Karmanos Cancer Institute

Karmanos Cancer Institute

And more to come...



Growth Mindset



Trust & Integrity



Collaboration



Compassion



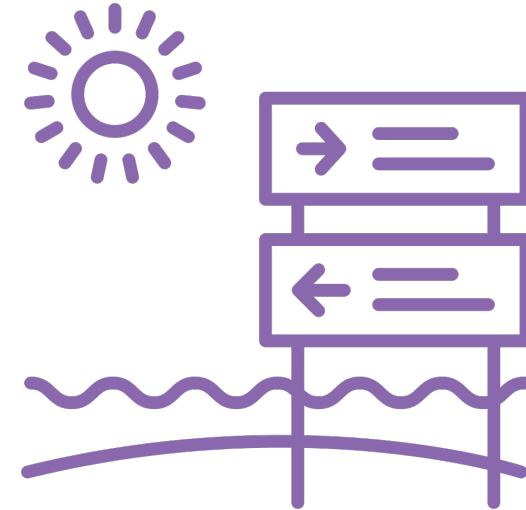
POQC Update

Steve Clark

Tracey Cargill-Smith

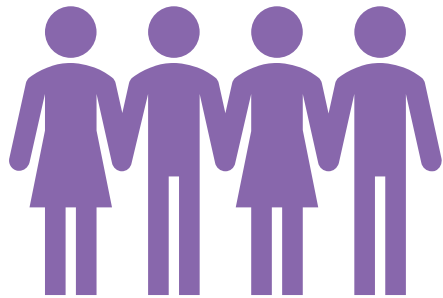
Mike Harrison

Diane Drago



POQC Update

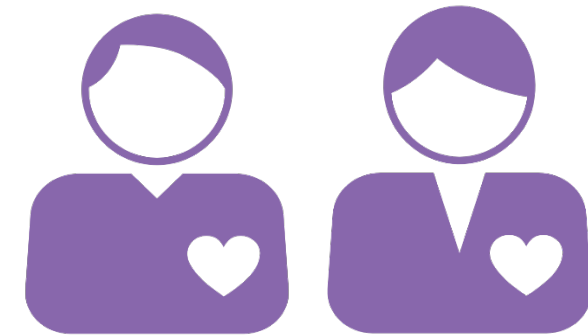
Recruitment & Retention



Financial Navigation



Patient & Caregiver Resources



For questions and follow-up email moqc@moqc.org



Steering Committee Report

Dawn Severson, MD



Steering Committee Report

- **MOQC Certification Update**

Open comment period for all MOQC sites begins week of June 19, 2023

- **Interprofessional development**

MOQC will be creating learning opportunities & resources for all members of your practice

- **Cancer drug repository moving forward**

Dr. Mackler presenting later this afternoon

Upcoming Medical Oncology Meetings

2023 Fall Regionals

Tobacco Cessation

2024 January Biannual

Equity in Cancer Care

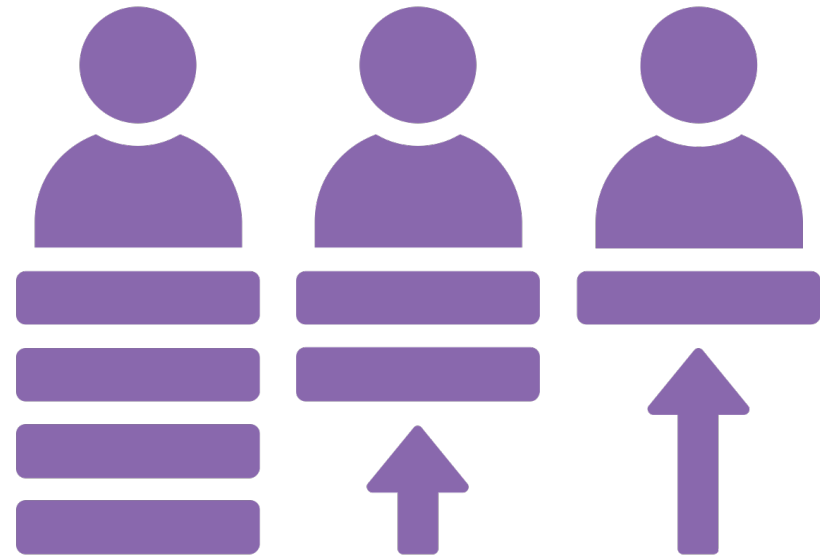
2024 June Biannual

Clinician & Team Flourishing

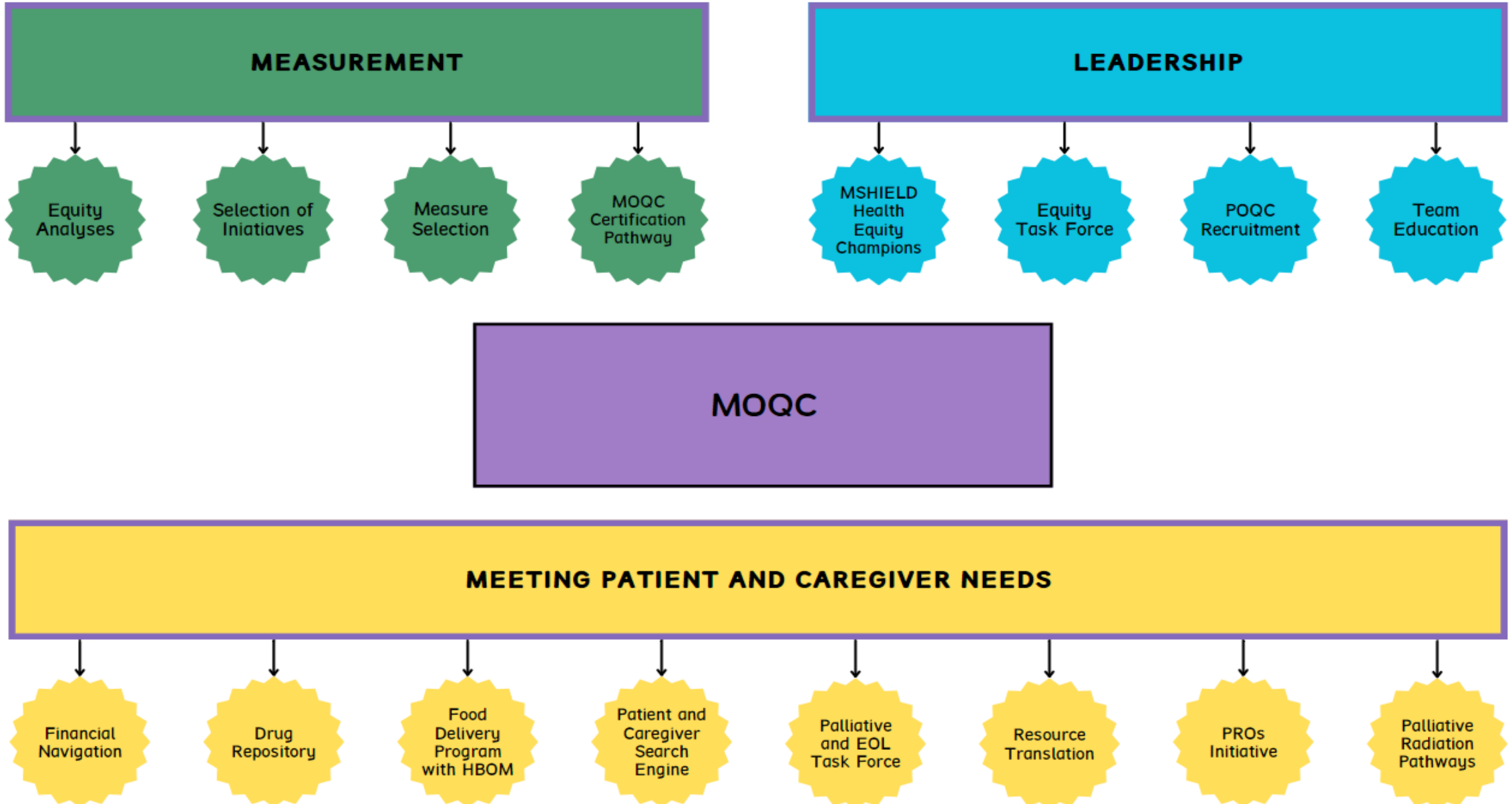
Debate—pros & cons of multicancer early detection

Equity Task Force Update

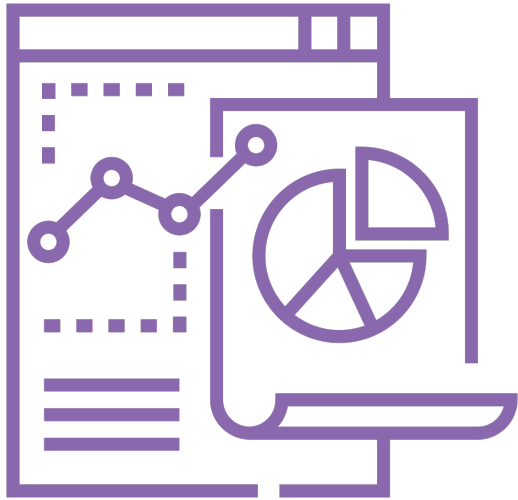
Sharon Kim



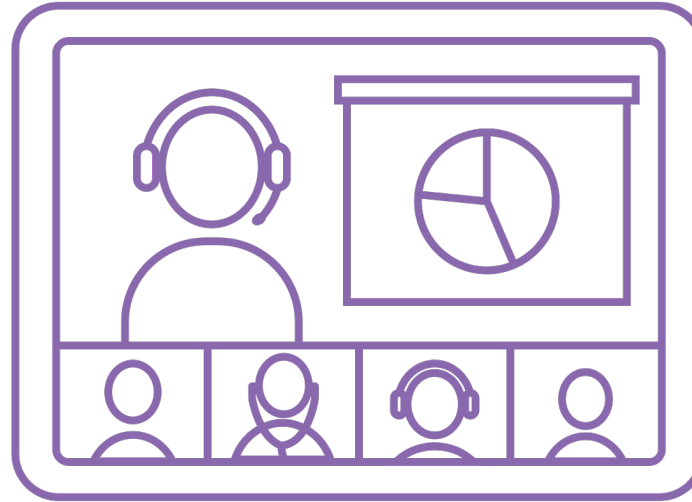
Equity Task Force Update



Equity Task Force Update



**Multivariate Analysis
of MOQC Data**



**Mayo Clinic's Patient
Navigation Program**



**Community
Partnerships**



MOQC Practice Performance & VBR Updates

Jennifer J. Griggs, MD, MPH



2023 Medical Oncology Measures

MOQC Pathway Measure	VBR Measure
Complete family history documented for patients with invasive cancer	x
Tobacco cessation counseling administered, or patient referred in past year	x
GCSF administered to patients who received chemotherapy for non-curative intent (lower score – better)	
NK1RA for low or moderate emetic risk cycle 1 chemotherapy (lower score – better)	x
NK1RA & olanzapine for high emetic risk chemotherapy	x
Hospice enrollment	x
Enrolled in Hospice for over 7 days	
Enrolled in Hospice for over 30 days	
Hospice enrollment within 7 days of death (lower score – better)	x
Chemotherapy administered within the last 2 weeks of life (lower score - better)	

2023 Medical Oncology Measures: Changes

New VBR Measure	VBR Measure
Complete family history documented for patients with invasive cancer	X

Measures Retiring from VBR
Completeness of race and ethnicity data
Smoking status recorded in medical record

2023 Value-Based Reimbursement Summary

Region-Level

Meet 4 of the following 5

- NK1RA & olanzapine given with high emetic risk chemotherapy 30%
- NK1RA given for low or moderate emetic risk cycle 10%
1 chemotherapy
- Hospice enrollment 60%
- Hospice enrollment within 7 days of death 35%
- Complete family history documented 35%

3% Opportunity

Practice-Level

- Meet all 5 region-level measures

2% Opportunity

Collaborative-Wide

- Tobacco cessation counseling administered or patient referred in past year 70%

2% Opportunity

Additional Criteria for Receiving VBR

Level	Criteria
Practice Level	At least one physician and one practice manager from the practice must attend both MOQC regional meetings and at least one biannual meeting during that year
Physician Level	Provider must be enrolled in PGIP for at least one year



Thank You, Data Abstractors

- Tracy Messing, MHP Hematology Oncology Consultants
- Nick Casabon, MHP Hematology Oncology Consultants
- Denise Gregoire, MHP Downriver
- Julie Boylan, Hematology Oncology Consultants
- Aimee Ryan, Great Lakes Cancer Management Specialists
- Ashley Poulin, Great Lakes Cancer Management Specialists
- Adrienne Stevens, Great Lakes Cancer Management Specialists
- Amy Flietstra, Cancer & Hematology Centers

- Alexandra Gehrke, Cancer & Hematology Centers
- Amy Morgan, Genesee Hematology Oncology
- Mary Nicholson, Genesee Hematology Oncology
- Vicky Reyes, Genesee Hematology Oncology
- Joanna Gil, Henry Ford Cancer Institute
- Kelly Bristow, Henry Ford Cancer Institute
- Lisa May, Henry Ford Cancer Institute
- Cheryl Ryan, Henry Ford Cancer Institute
- Holly Boyle, Henry Ford Cancer Institute
- Vanessa Schroeder, Henry Ford Cancer Institute
- Lori Longhridge, Huron Medical Center
- Katie Dombecki, Huron Medical Center
- Alicia Kehoe, Huron Medical Center



Thank You, Data Abstractors

- Vickie Foley, Karmanos Bay Oncology Hematology
- Wendy Mielens, Karmanos Bay Oncology Hematology
- Amanda Boisvert, Karmanos Cancer Institute at McLaren Macomb
- Jeanie Rye, Memorial Healthcare Cancer Center
- Roxy Salam, Cancer & Leukemia Center
- Kelly Guswiler, Munson Oncology
- Renae Vaughn, Munson Oncology
- Angela Gorham, West Michigan Cancer Center & Institute for Blood Disorders
- Erika Burkland, Dickinson Hematology/Oncology Clinic
- Cynthia Keyton, KCI McLaren Greater Lansing Hospital
- Heather Spotts, KCI McLaren Greater Lansing Hospital
- Jeanne Melton, KCI McLaren Northern Michigan Hem Onc

MOQC Team & MOQC by Proxy

Kleanthe Kolizeras, Heather Behring,
Cindy Michalek, Heather Rombach,
Deborah Turner, Shawn Winsted,
Colleen Schwartz, Therese Hecksel

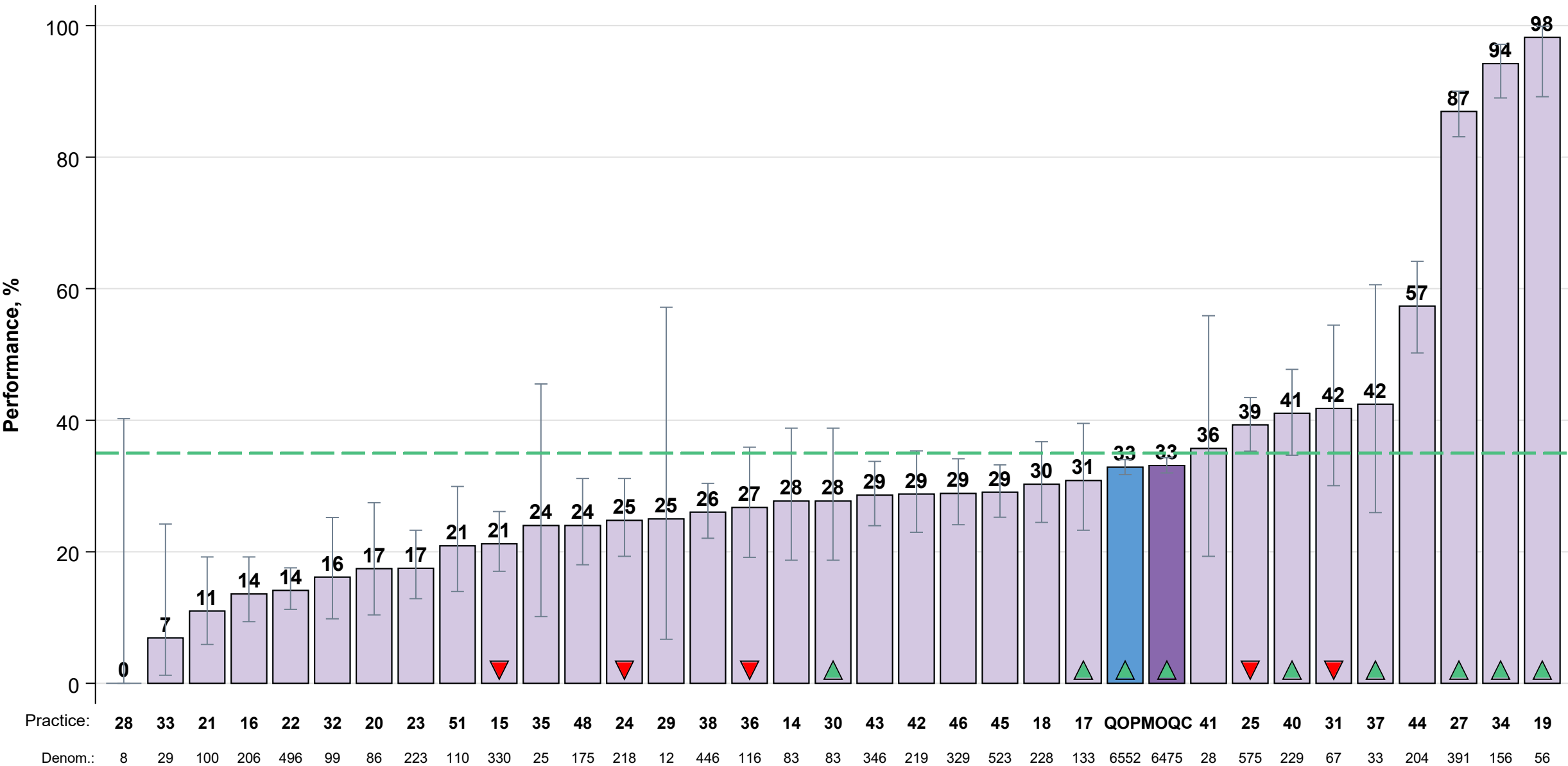
Measures

- ▲ or ▼ indicates statistically significant **improvement** or **worsening** in performance between time periods ($p < 0.05$)
- Practices with no eligible cases in the denominator and/or missing data from one of the time periods are not shown

Complete family history document for patients with invasive cancer (108a) (n = 6552)

VBR Measure

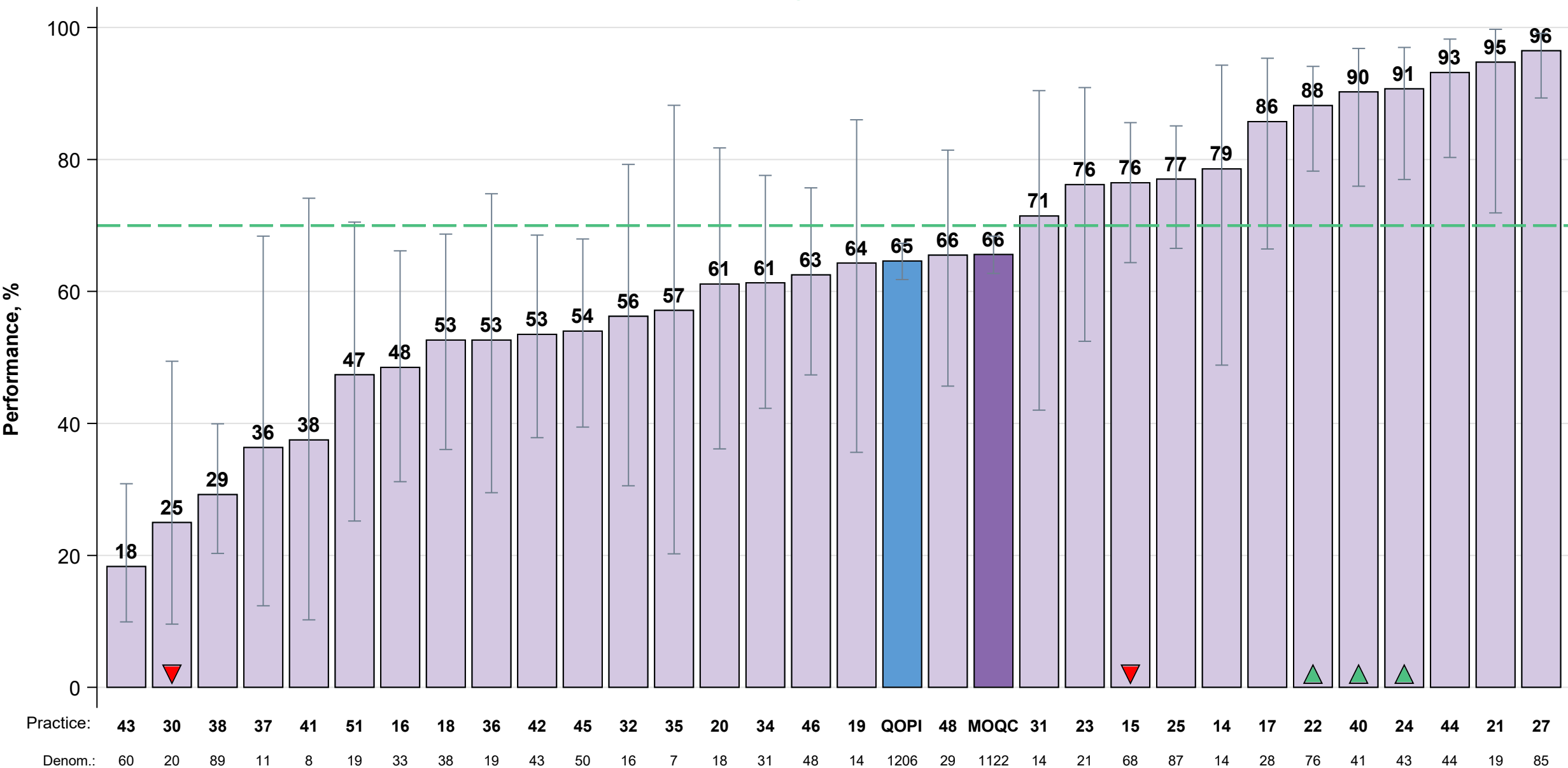
Target = 35%



Tobacco cessation counseling administered or patient referred in past year (101b)(n = 1122)

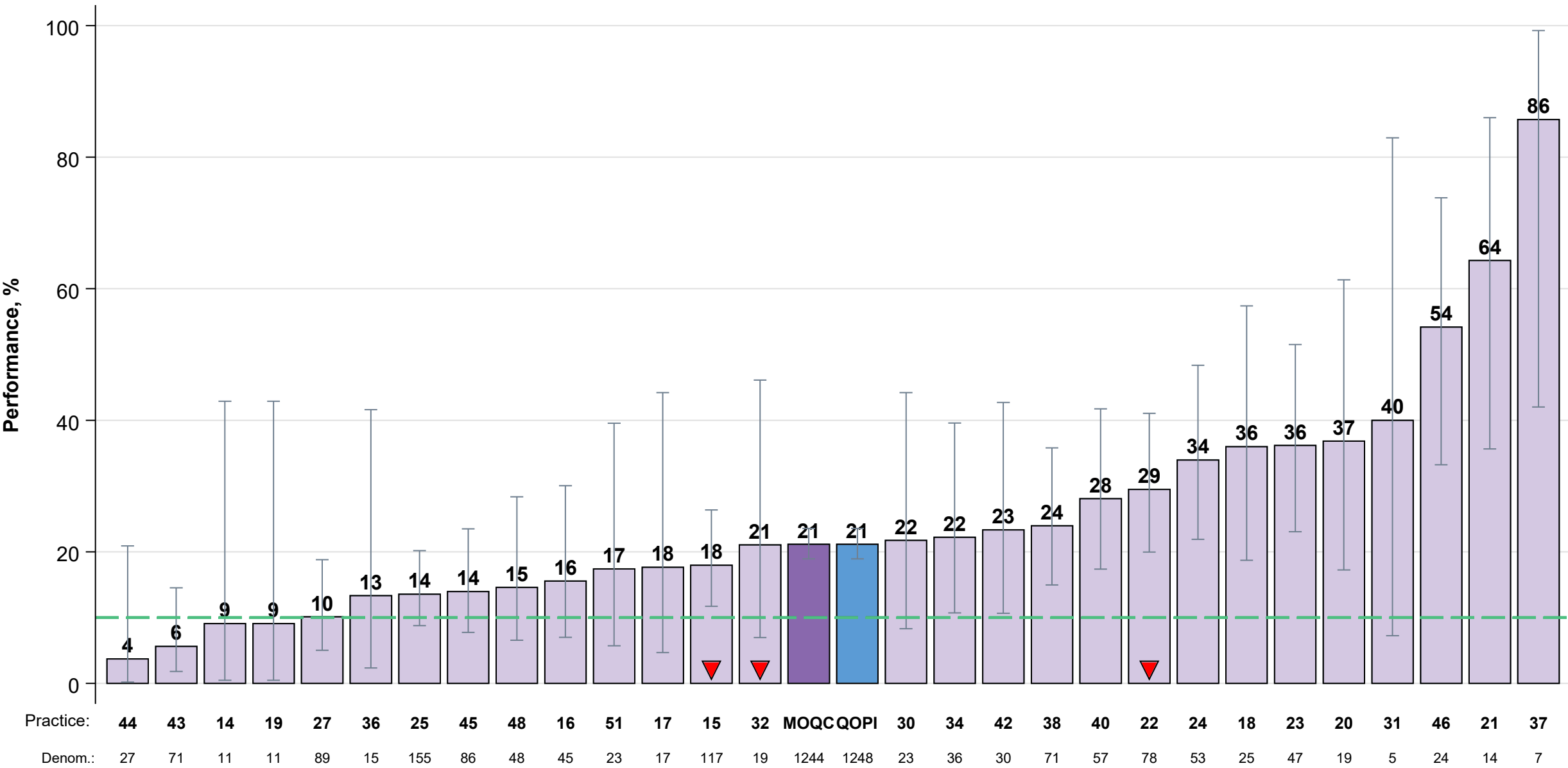
Target = 70%

VBR Measure



GCSF administered to patients who received chemotherapy for non-curative intent (111)(n = 1244)

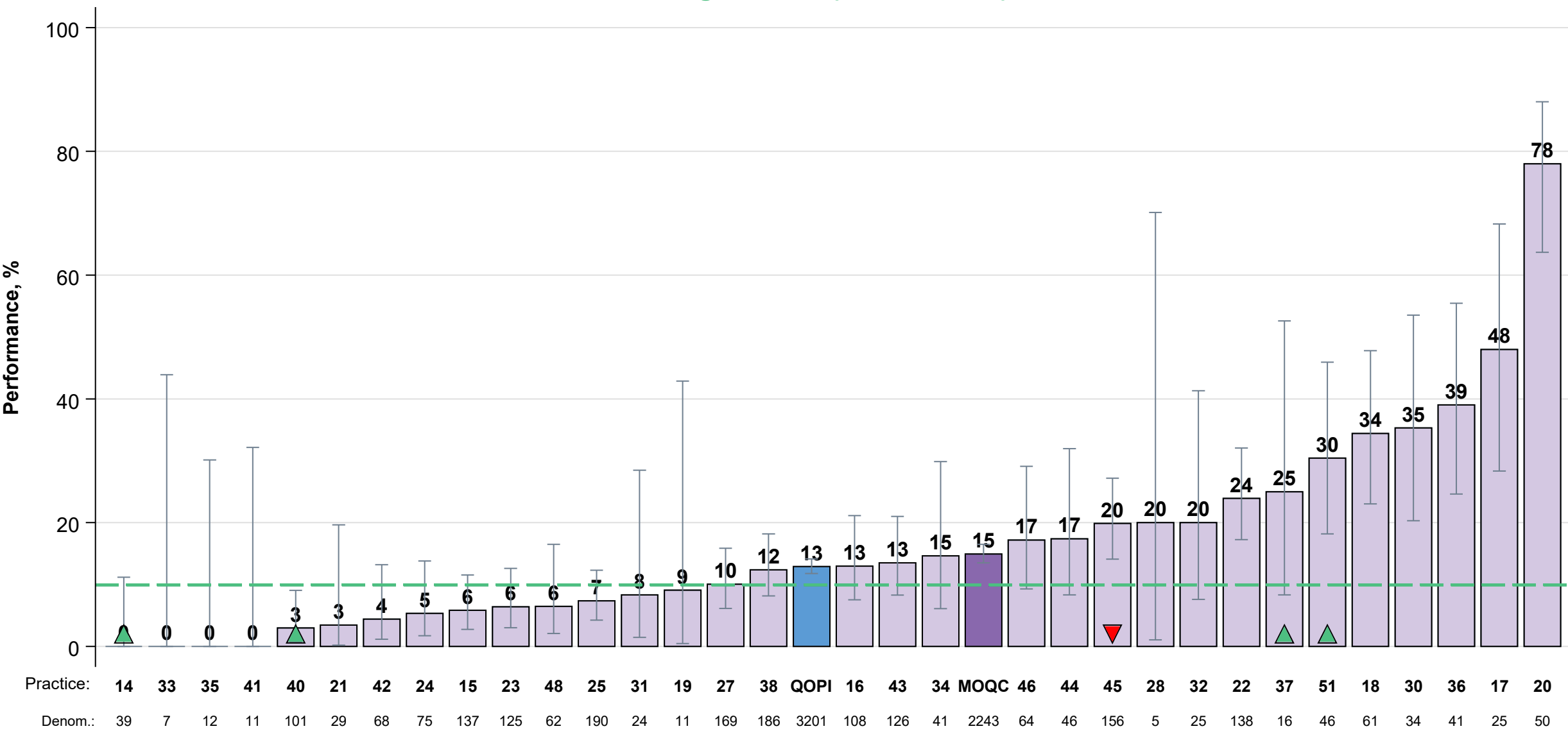
Target = 10% (lower=better)



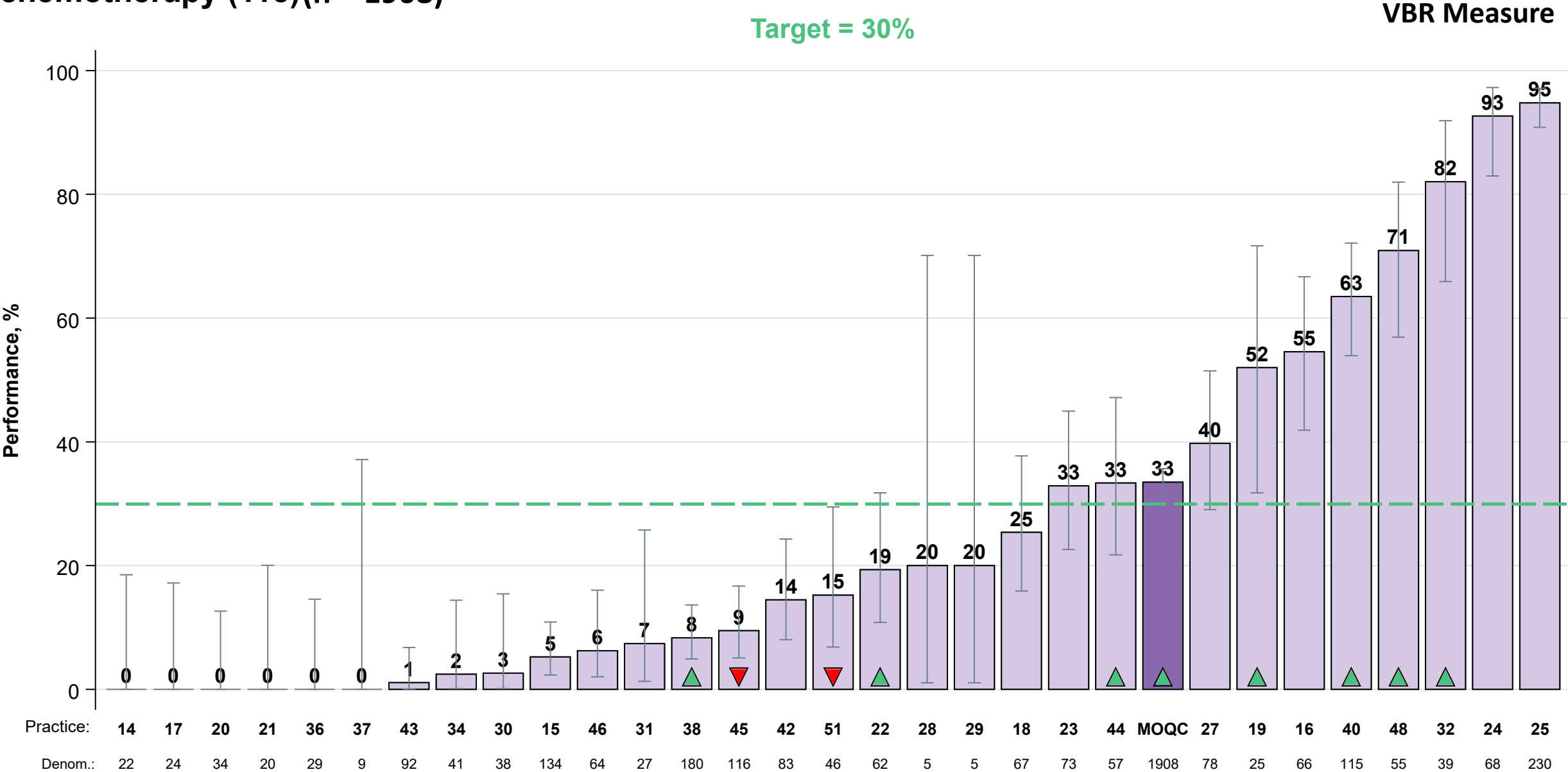
NK1 receptor antagonist prescribed or administered for low or moderate emetic risk cycle 1 chemotherapy (114) (n = 2243)

Target = 10% (lower=better)

VBR Measure



NK1 receptor antagonist and olanzapine prescribed or administered with high emetic risk chemotherapy (115)(n = 1908)





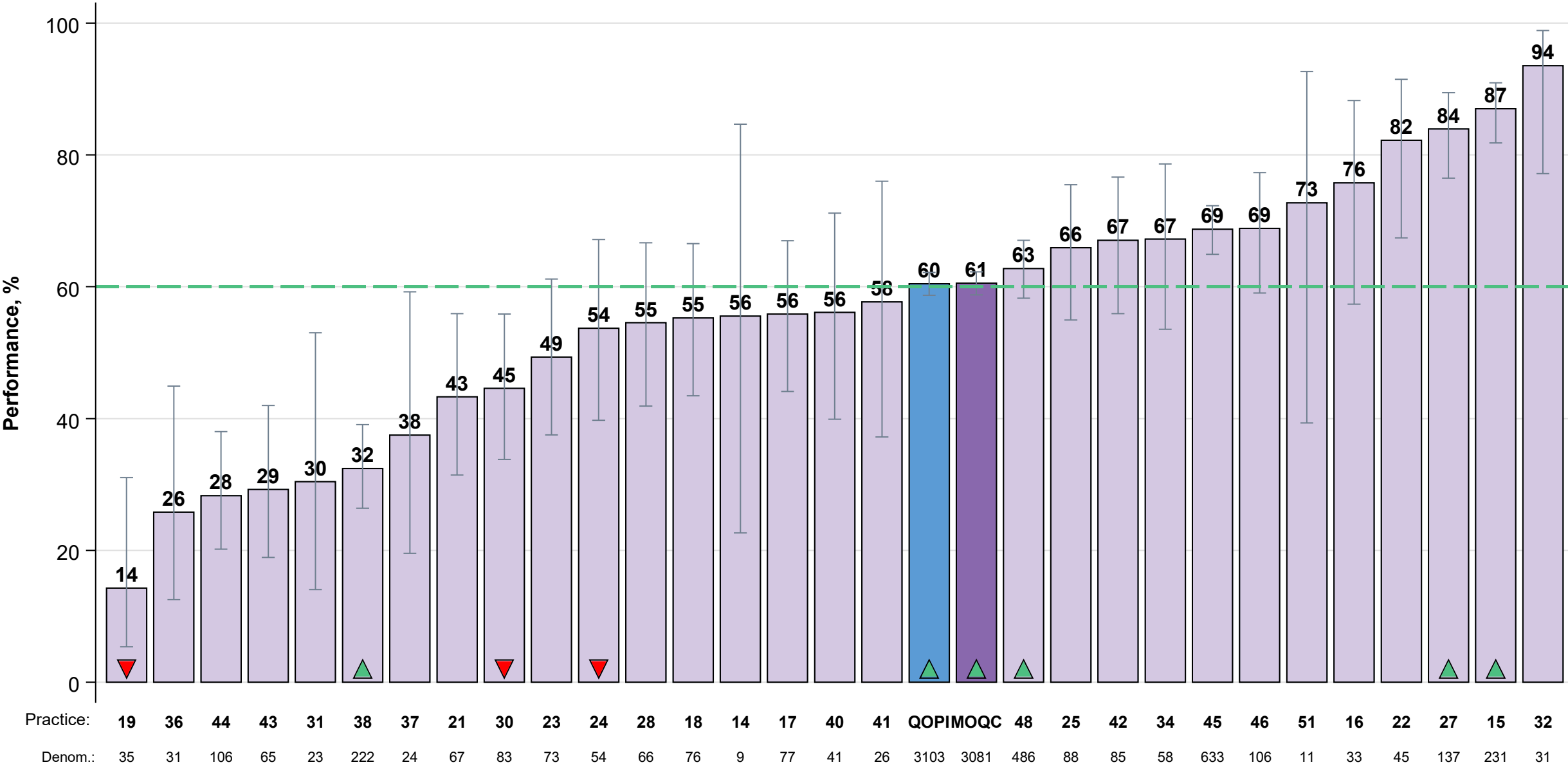
End-of-Life Measures



Hospice enrollment (126a)(n = 3081)

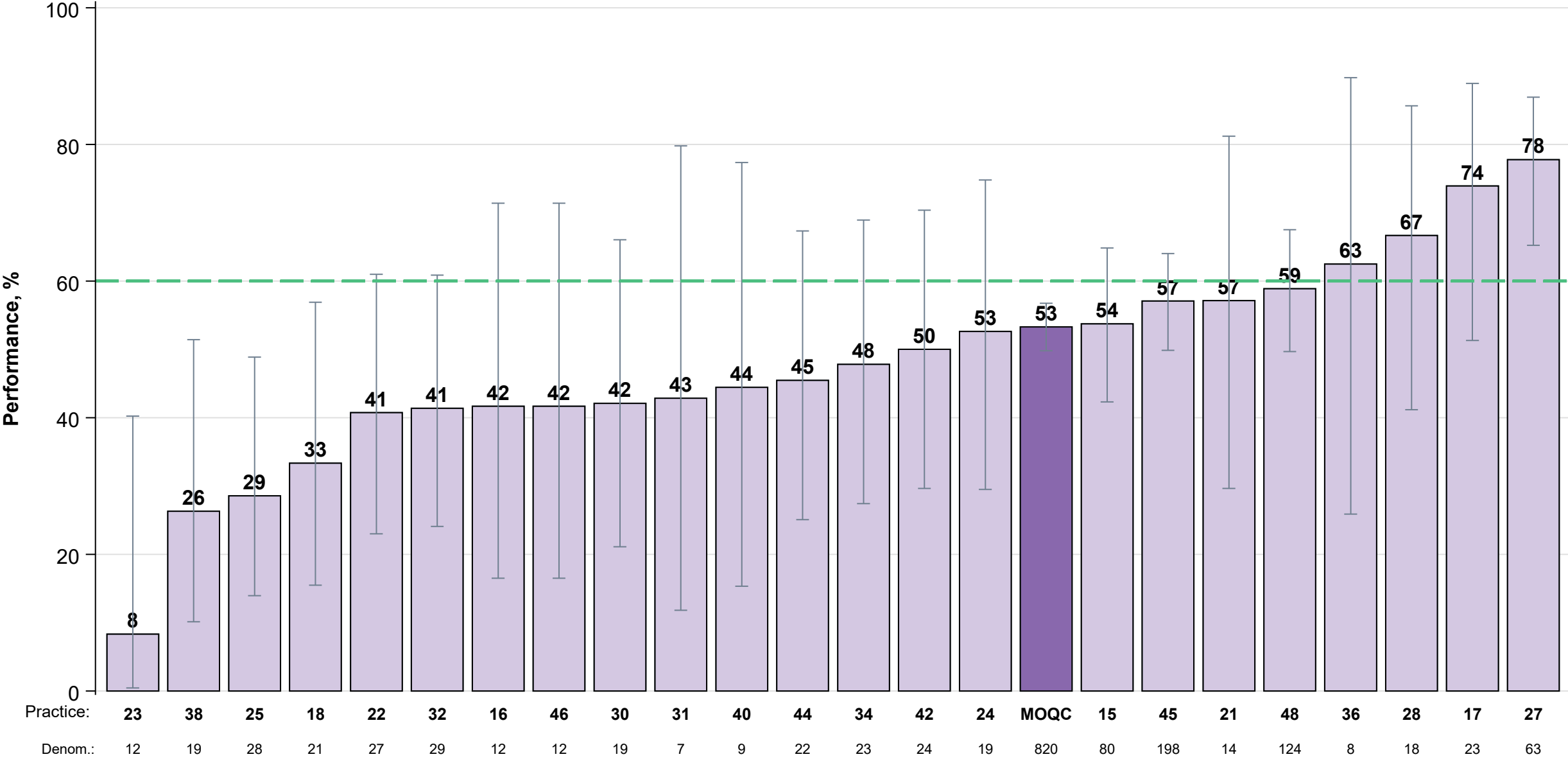
VBR Measure

Target = 60%



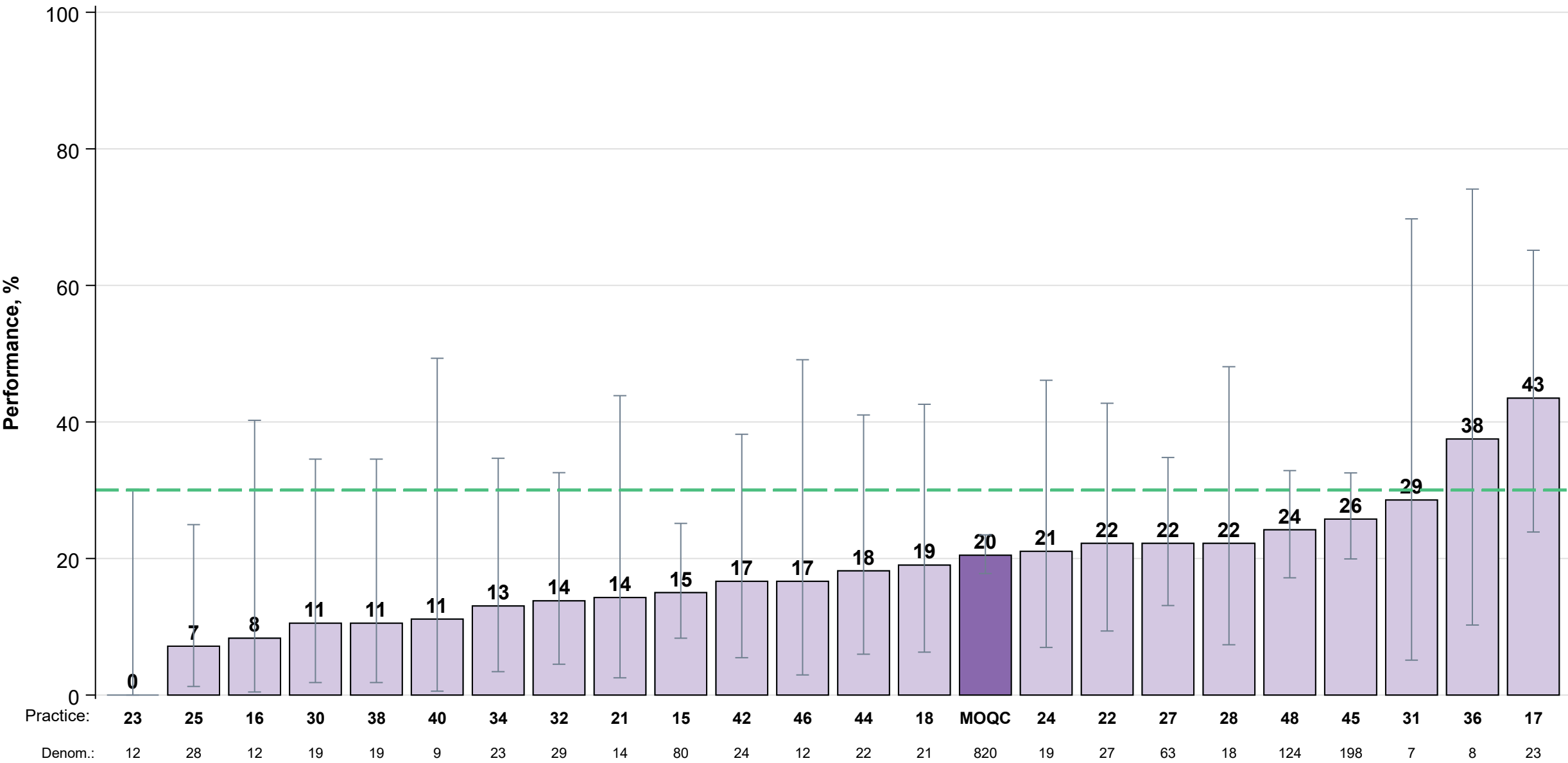
Hospice enrollment more than 7 days before death (126b)(n = 820)

Target = 60%



Hospice enrollment more than 30 days before death (126c)(n = 820)

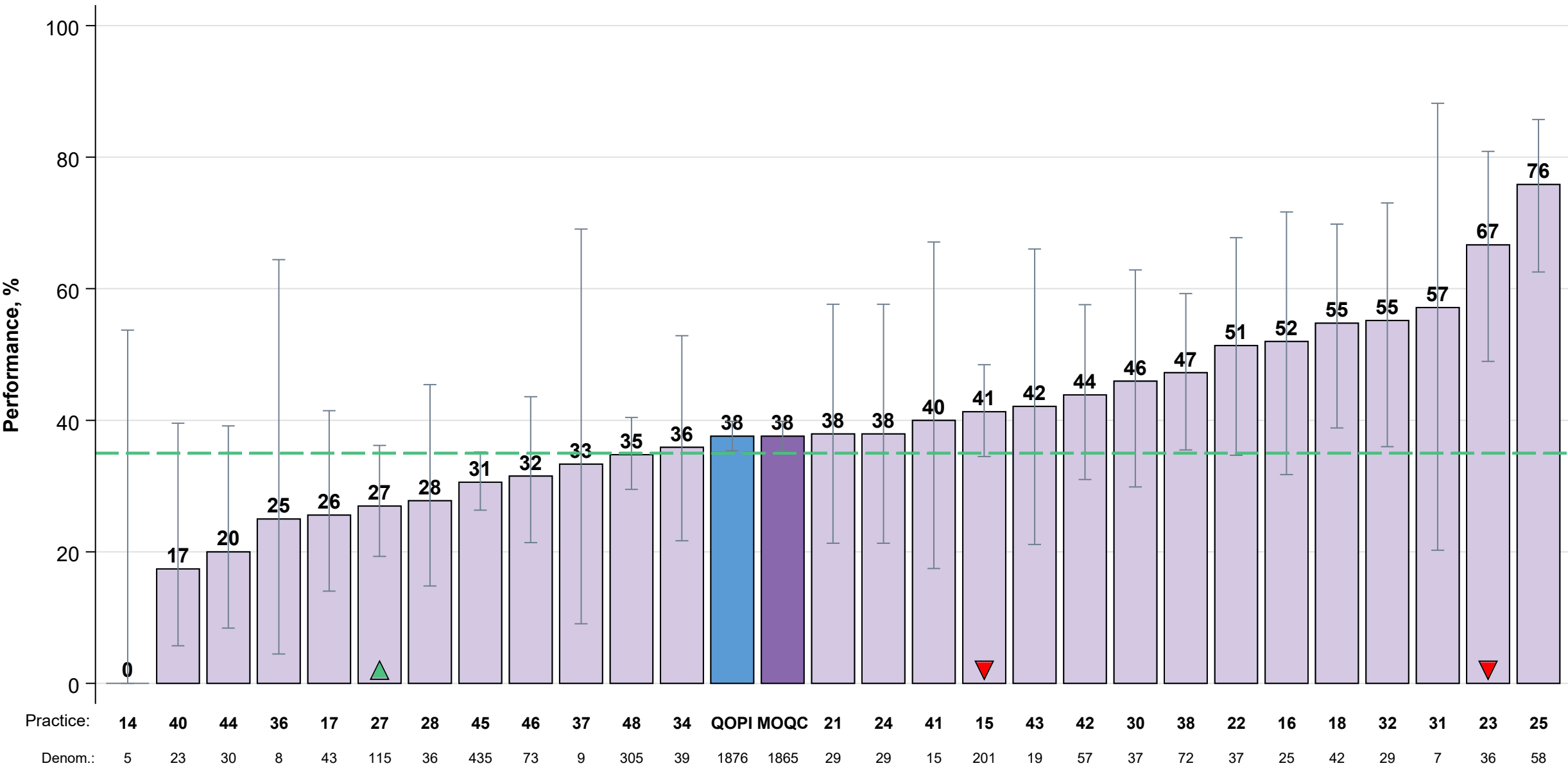
Target = 30%



Hospice enrollment within 7 days of death (EOL45)(n = 1865)

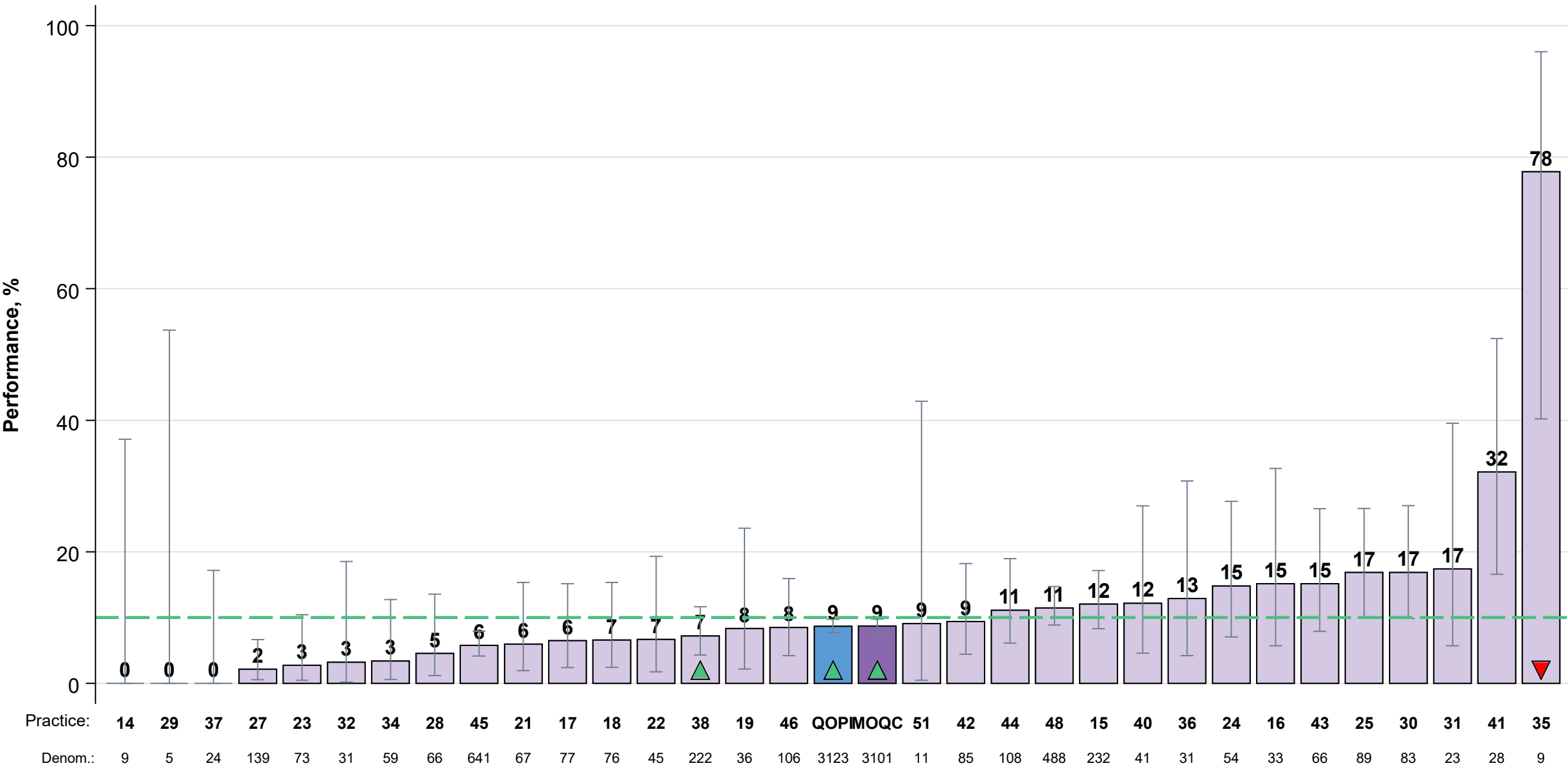
VBR Measure

Target = 35% (lower=better)



Chemotherapy administered within the last 2 weeks of life (127)(n = 3101)

Target = 10% (lower=better)



Discussion



Submit your questions:
[slido.com](https://www.slido.com)
#3241 511

Break



The Voice of the Caregiver



Improving Cancer Care Quality through Palliative Care Integration

Thomas W. LeBlanc, MD, MA, MHS, FAAHPM, FASCO
Associate Professor of Medicine with Tenure
Division of Hematologic Malignancies

Director, Cancer Patient Experience Research Program
(CPEP)

Chief Patient Experience and Safety Officer



Objectives

At the conclusion of this session, the participants will be able to

1. Explain the benefits of early concurrent specialist palliative care in patients with advanced cancer, citing data from multiple randomized controlled trials
2. Select patients with malignancy in whom the inclusion of palliative and supportive care specialists is warranted, including those receiving curative intent therapies like stem cell transplantation
3. Propose models for integrating models of palliative care and expanding access to care for patients who have difficulty accessing such care in their practice

Outline

- Case
- Palliative Care: a 21st Century Definition
- Palliative care needs in hematologic malignancies
- Data on integrated care, and outcomes



QUESTION 1: DOES JEAN NEED PALLIATIVE CARE?



**Submit your response:
slido.com
#3241 511**

**QUESTION 2:
DO YOU HAVE ACCESS TO
OUTPATIENT SPECIALIST
PALLIATIVE CARE IN YOUR
PRACTICE?**



**Submit your response:
[slido.com](https://slido.com/join/3241511)
#3241 511**

WHAT IS PALLIATIVE CARE?

...SPECIALIZED MEDICAL CARE FOR PEOPLE FACING A SERIOUS ILLNESS

CAPC.org definition

**...FOCUSES ON PROVIDING
PATIENTS WITH RELIEF
FROM THE SYMPTOMS AND
STRESS OF A SERIOUS
ILLNESS**

CAPC.org definition

**...GOAL IS TO IMPROVE
QUALITY OF LIFE FOR
THE PATIENT AND
FAMILY**

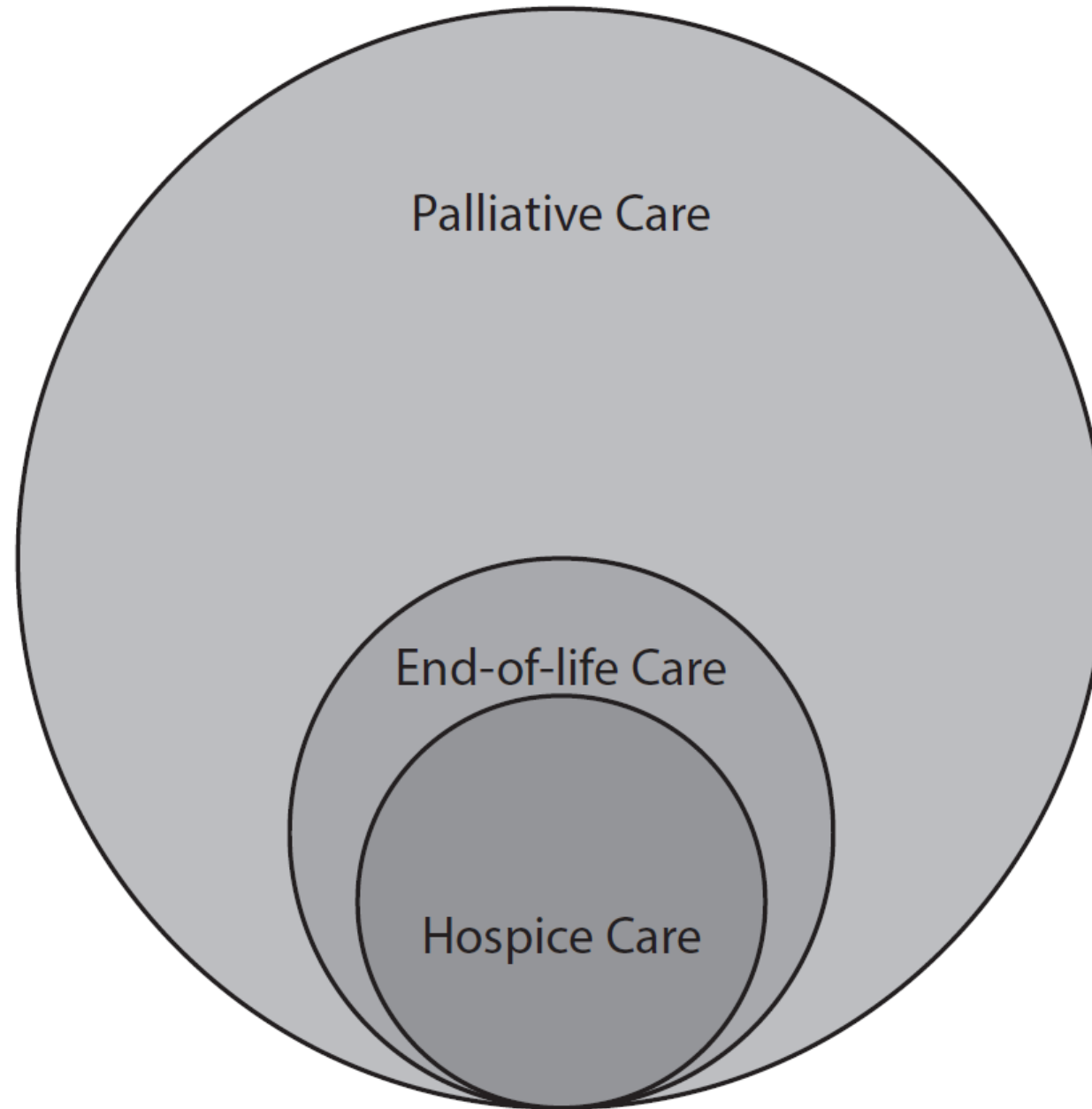
CAPC.org definition

**...PROVIDED BY A SPECIALLY-
TRAINED TEAM OF DOCTORS,
NURSES, AND OTHER
SPECIALISTS WHO WORK
TOGETHER WITH A PATIENT'S
OTHER DOCTORS TO PROVIDE
AN EXTRA LAYER OF SUPPORT**

CAPC.org definition

**...IT IS APPROPRIATE AT ANY
AGE AND AT ANY STAGE IN A
SERIOUS ILLNESS AND CAN BE
PROVIDED ALONG WITH
CURATIVE TREATMENT**

CAPC.org definition



WHO PROVIDES IT?

The Workforce

ABMS recognized “hospice and palliative medicine” as a board certified subspecialty in 2006

– **> 8,000 boarded specialists in the US**

- > 100 fellowship training programs
- Fellowship training required since 2013 (1 year)

>90% of US hospitals >300 beds have palliative care

HOWEVER, most palliative care for patients with cancer is provided by their cancer care team

Primary vs. Specialty Palliative Care

Primary palliative care:

- Pain management
- CINV prevention/tx
- Symptom mgt
- Psychological support
- Prognostic discussions, goals of care

Specialty palliative care:

- Complex, refractory symptoms
- Persistent distress, coping
- Complex communication, poor understanding of prognosis
- Advance directives, legacy planning
- Family/caregiver support

WHAT DO PALLIATIVE CARE SPECIALISTS DO?

Core Competencies

- Symptom management
 - Complex/refractory symptom management
- Communication
 - Difficult communication / conflict resolution
 - Facilitating prognostic understanding; aid in decisions
- Psychosocial distress assessment and management
- Spiritual assessment and support
- Family and caregiver care
- End-of-life care (including hospice)

Different Focus

Patients talk about different things with their oncologist than they do with their palliative care specialist

Three primary foci of palliative care visits in oncology:

- 1. Symptom management**
- 2. Engaging patients in emotional work**
- 3. Serving as communication bridge**

*this should not replace the “primary palliative care” that most of us already provide

Back AL, et al. “Clinician roles in early integrated palliative care for patients with advanced cancer: a qualitative study.” *Journal of Palliative Medicine*, 2014.

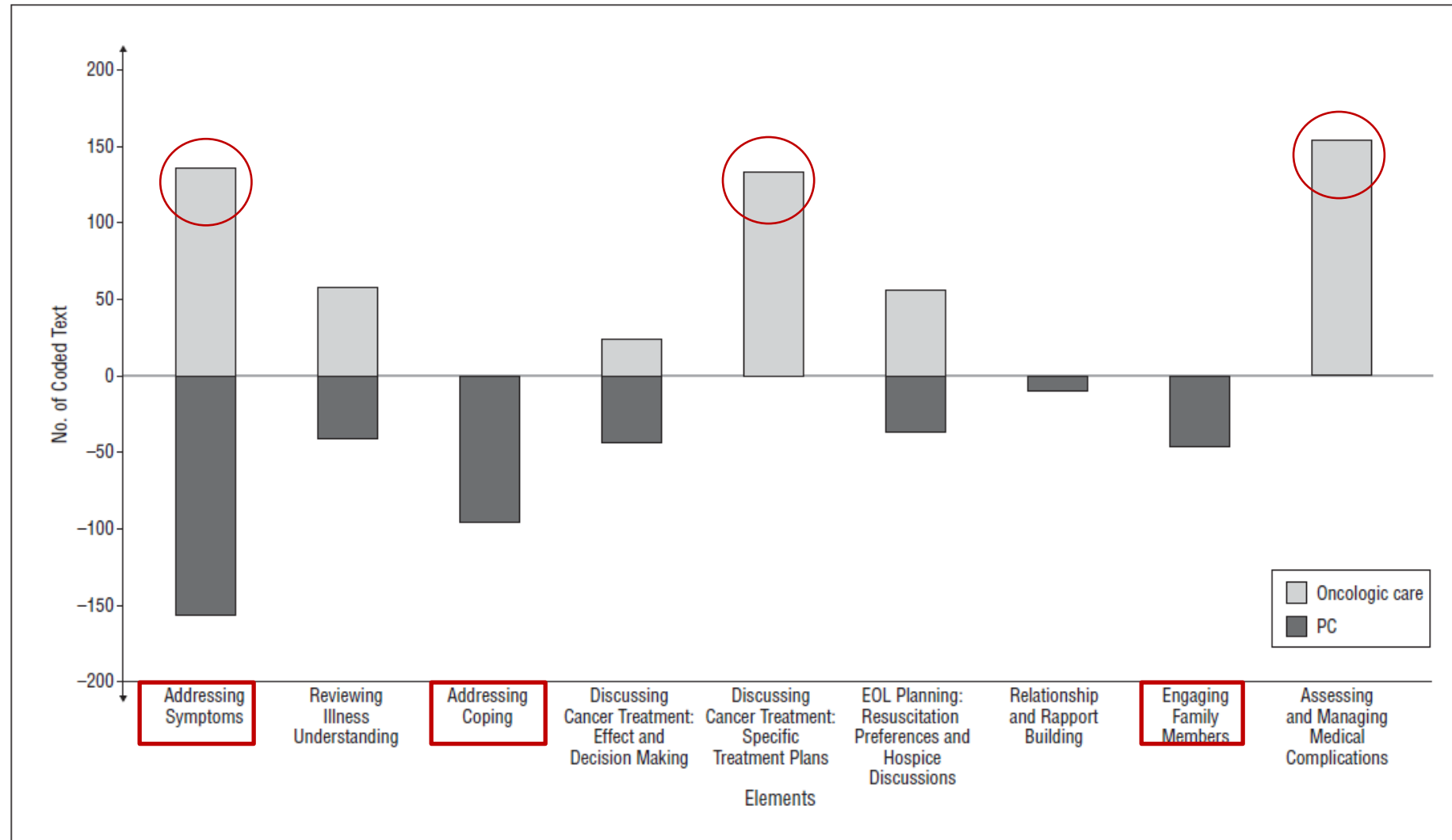


Figure 2. Elements of palliative care (PC) vs oncologic care visits at clinical turning points. EOL indicates end of life.

Integrated Palliative Care Studies in Oncology

Many randomized clinical trials:

- Bakitas et al, JAMA 2009, ENABLE II study
- Temel et al, NEJM 2010
- Zimmerman et al, Lancet 2014
- Bakitas et al, JCO 2015, ENABLE III study
- Grudzen et al, JAMA Oncology 2016
- Temel et al, JCO 2016
- **El-Jawahri et al, JAMA 2016, SHIELD study**
- Vanbutsele et al, Lancet Onc 2018
- **El-Jawahri and LeBlanc, JAMA Onc 2020, LEAP trial**

Many patient-centered outcome improvements

- **Starting to see long-term and caregiver outcomes improve**

No study has shown harm

Improved outcomes in these studies

- **Quality of life**
- **Symptom management**
- **Mood/depression**
- **Prognostic understanding**
- **Caregiver outcomes**
- **Utilization/costs**
- **Satisfaction**
- **End-of-life outcomes**
- **Survival**

Professional Society Recommendations

- American Society of Clinical Oncology
 - “any patient with metastatic cancer and/or high symptom burden”
- American College of Surgeons, Commission on Cancer
 - Accredited programs “required to offer palliative care either on site or by referral”
- National Comprehensive Cancer Network
 - “Institutions should develop processes for integrating palliative care into cancer care, both as part of usual oncology care and for patients with specialty palliative care needs”
- Oncology Nursing Society
 - “All patients with cancer benefit from palliative care”
 - “Palliative care should begin at time of diagnosis”

Smith TJ, et al. “American Society of Clinical Oncology Provisional Clinical Opinion: the Integration of Palliative Care Into Standard Oncology Care.” *Journal of Clinical Oncology*, 2012.
American College of Surgeons New CoC Accreditation Standards, 2011: <https://www.facs.org/media/press-releases/2011/coc-standards0811>
NCCN Guidelines Version 2.2015 – Palliative Care: http://www.nccn.org/professionals/physician_gls/PDF/palliative.pdf
ONS Position Statement: Palliative Care for People With Cancer: <https://www.ons.org/advocacy-policy/positions/practice/palliative-care>

**QUESTION 3: WHAT
PROPORTION OF YOUR
PATIENTS WITH ADVANCED
CANCER ARE REFERRED TO
PALLIATIVE CARE BEFORE
END OF LIFE?**



**Submit your response:
slido.com
#3241 511**

WHAT ARE THE PALLIATIVE AND END-OF-LIFE CARE NEEDS OF HEMATOLOGY PATIENTS?



54%



81%

39%



43%





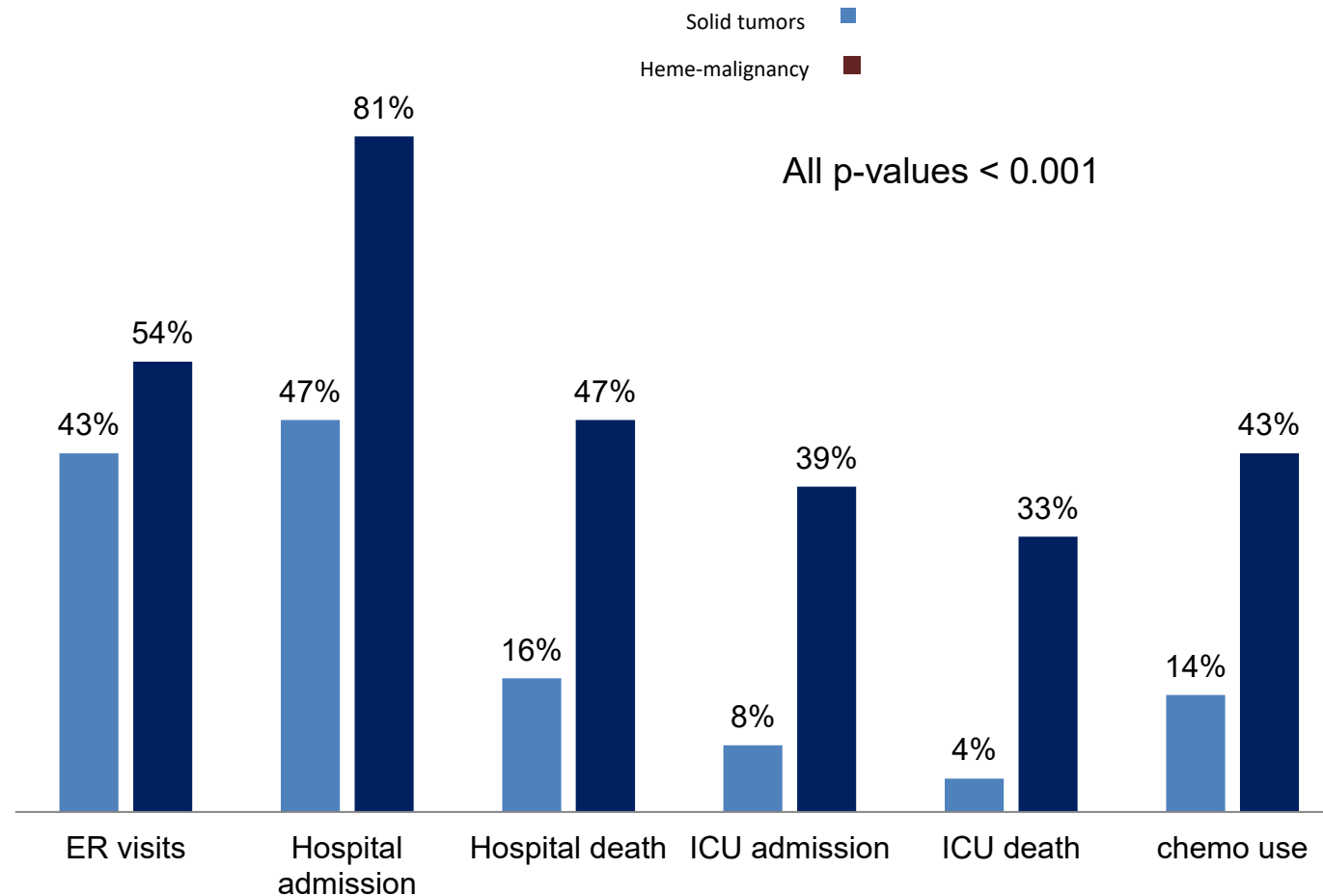
1 1



57,230

40,610

Unmet End-of-Life Needs in Hematologic Malignancies



Outcomes: The “Quality Measures” Gap

- Patients with blood cancers are more likely to: ^{1,2}
 - **receive chemotherapy in the last 14 days of life**
 - **spend time in an ICU in the last 30 days of life**
- Patients with blood cancers are less likely to:
 - **access consultative palliative care services³**
 - **use hospice services⁴**
 - Or, are more likely to die within 7 days of enrollment, or within 24 hrs of enrollment ⁵
 - Median LOS of 11 days, vs. 19 for solid tumors ⁵

1. Howell, DA, et al. “Destined to die in hospital? Systematic review and meta-analysis of place of death in haematological malignancy.” *BMC Pall Care*, 2010.

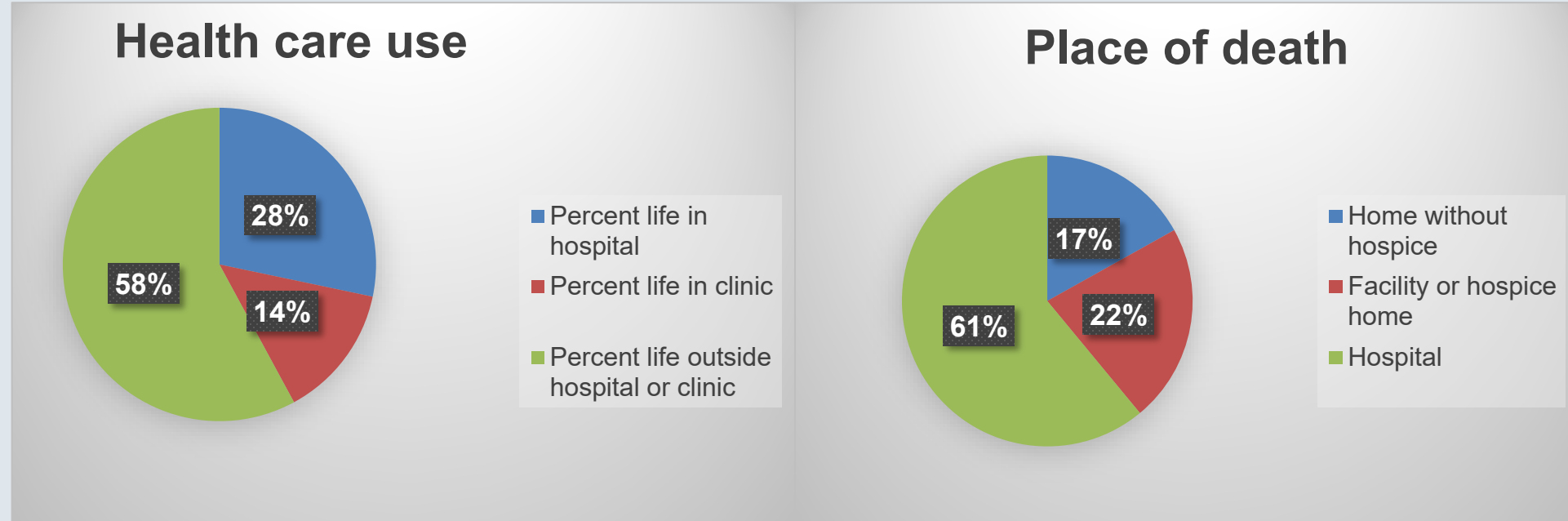
2. Hui, et al. “Quality of end-of-life care in patients with hematologic malignancies: a retrospective cohort study.” *Cancer* 2014

3. Howell DA, et al. Haematological malignancy: are patients appropriately referred for specialist palliative and hospice care? A systematic review and meta-analysis of published data.” *Palliat Med* 2011.

4. Odejide, et al. “Hospice use among patients with lymphoma: impact of disease aggressiveness and curability.” *JNCI*, 2015.

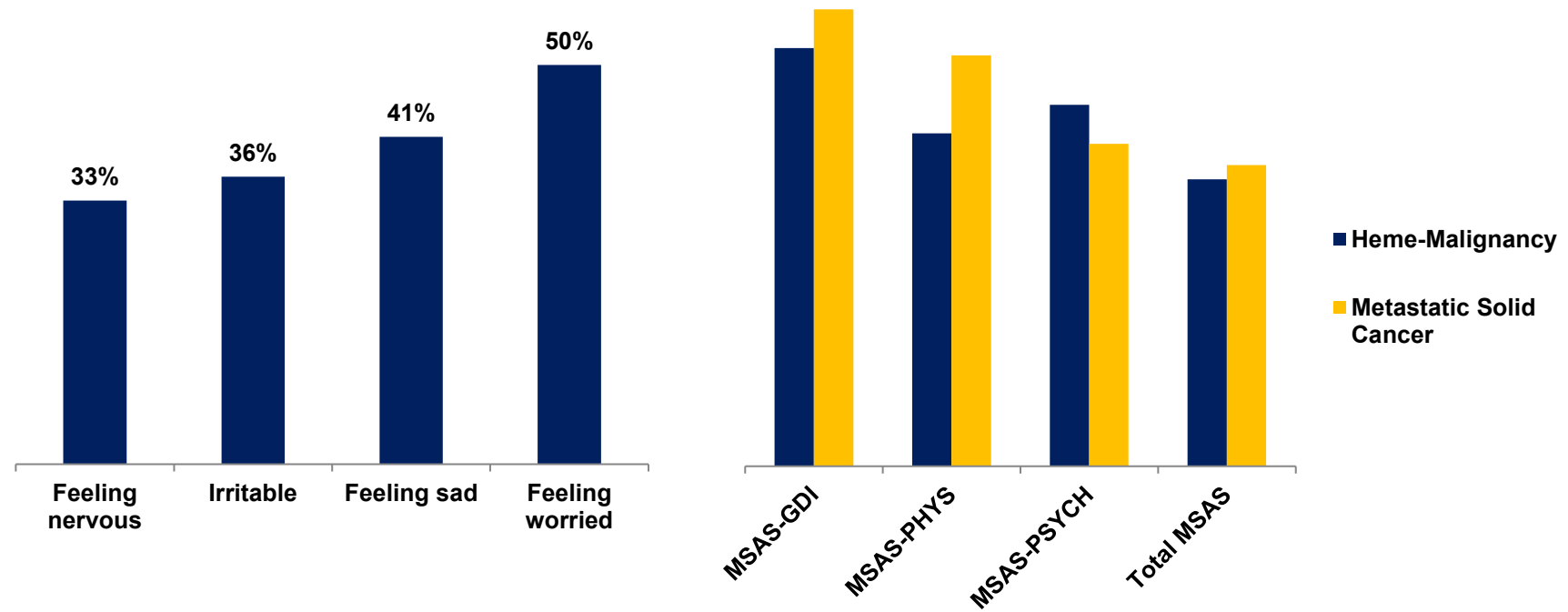
5. LeBlanc TW, Abernethy AP, Casarett DJ. “What Is Different About Patients With Hematologic Malignancies? A Retrospective Cohort Study of Cancer Patients Referred to a Hospice Research Network.” *Journal of Pain and Symptom Management*, 2014

Burden of Care in AML

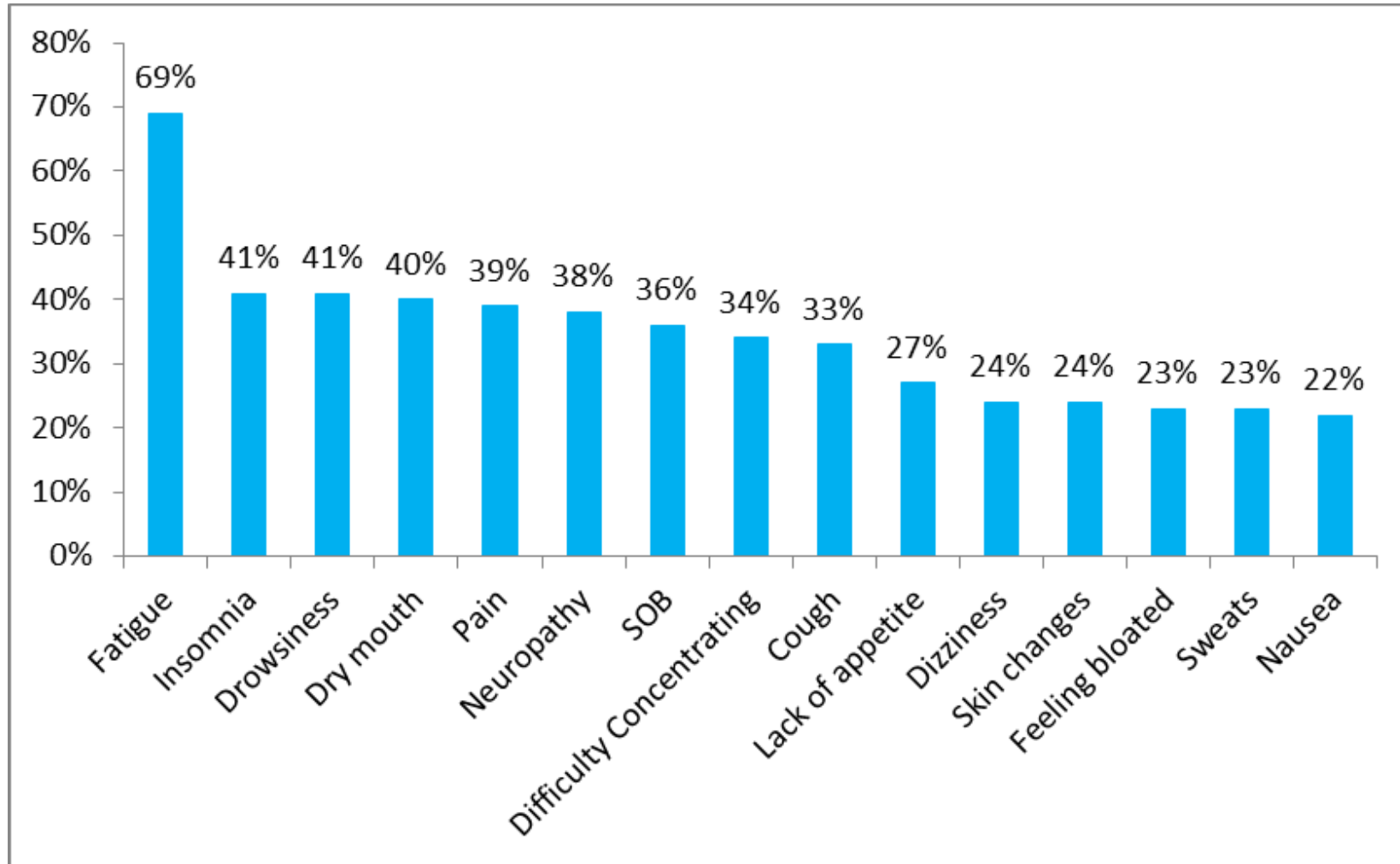


- Median hospitalizations = 4.2
- ICU admissions = 31.7%
- Palliative care consult = 16.2%
- Hospice utilization = 22%

Unmet Symptom Needs in Hematologic Malignancies



Symptom Burden





DOES PALLIATIVE CARE WORK IN HEMATOLOGY?

Randomized Trial of Inpatient Palliative Care Intervention for Patients Hospitalized for Hematopoietic Stem Cell Transplantation (HCT)

Areej El-Jawahri, Thomas LeBlanc, Harry VanDusen, Lara Traeger, Joseph Greer,
William Pirl, Vicki Jackson, Jason Telles, Alison Rhodes, Thomas Spitzer, Steven McAfee,
Yi-Bin Chen, Stephanie Lee, Jennifer Temel



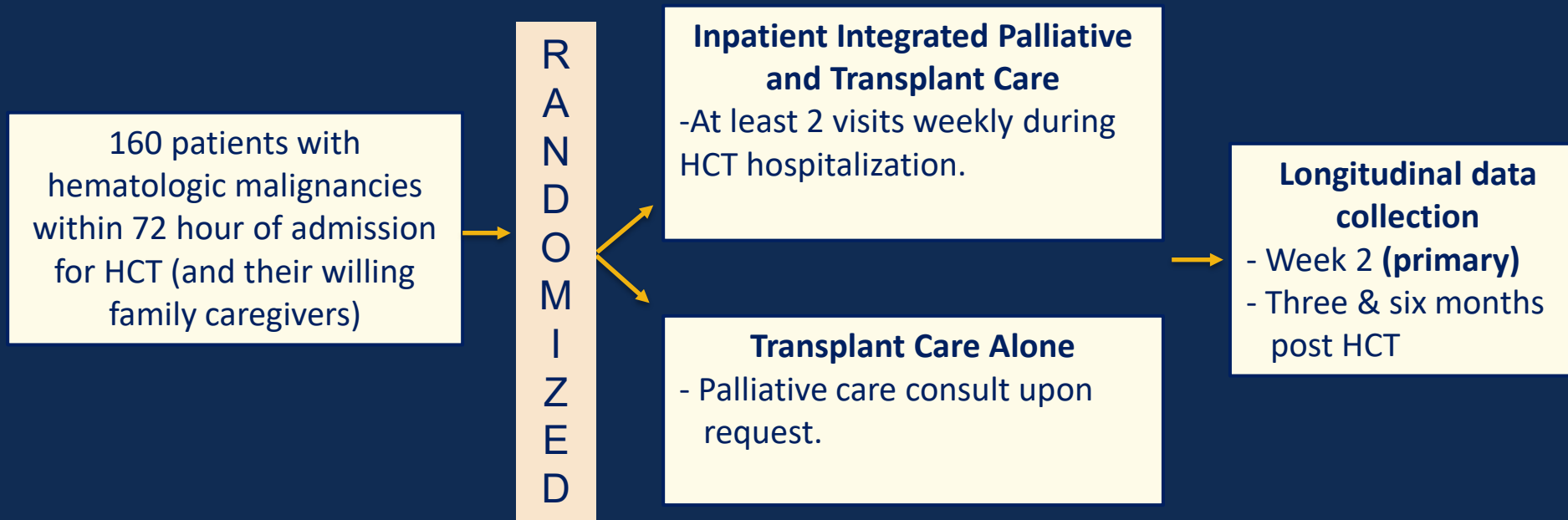
MASSACHUSETTS
GENERAL HOSPITAL
CANCER CENTER

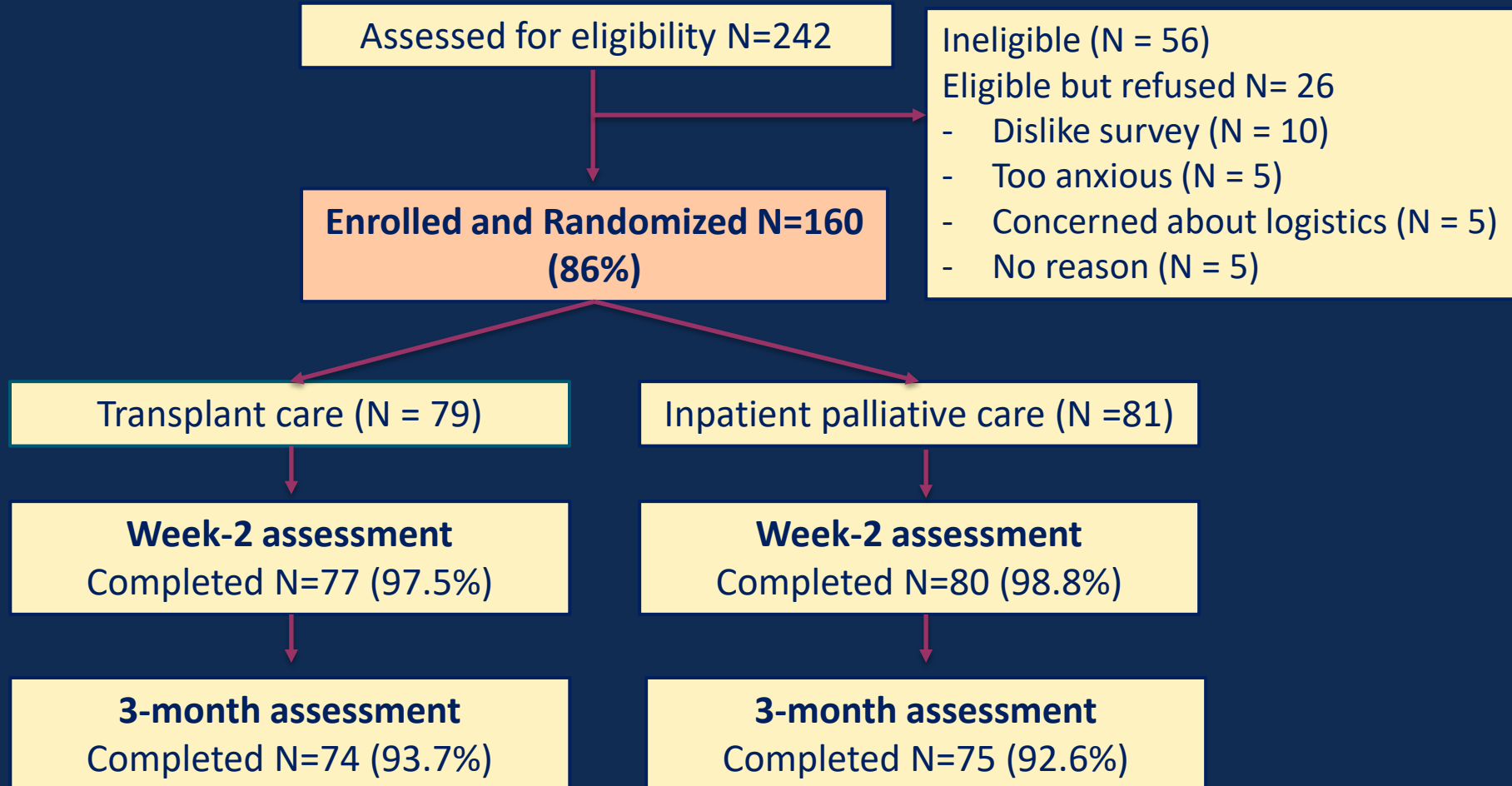


CANCER
OUTCOMES
RESEARCH



Study Design

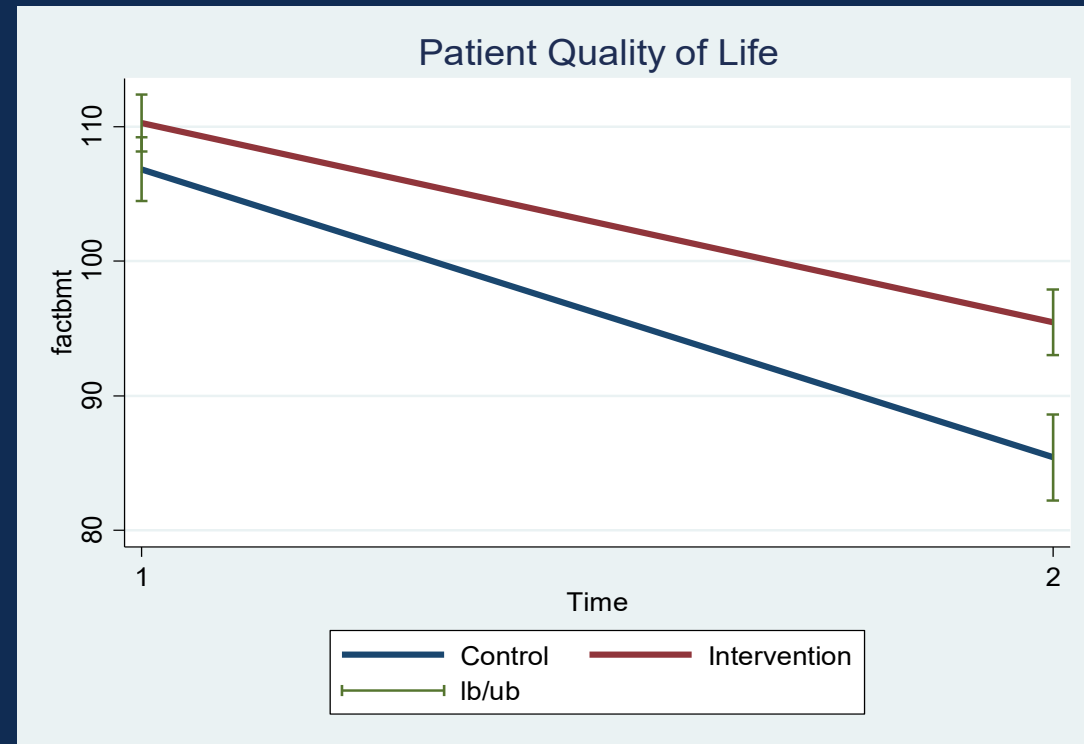






Patient QOL

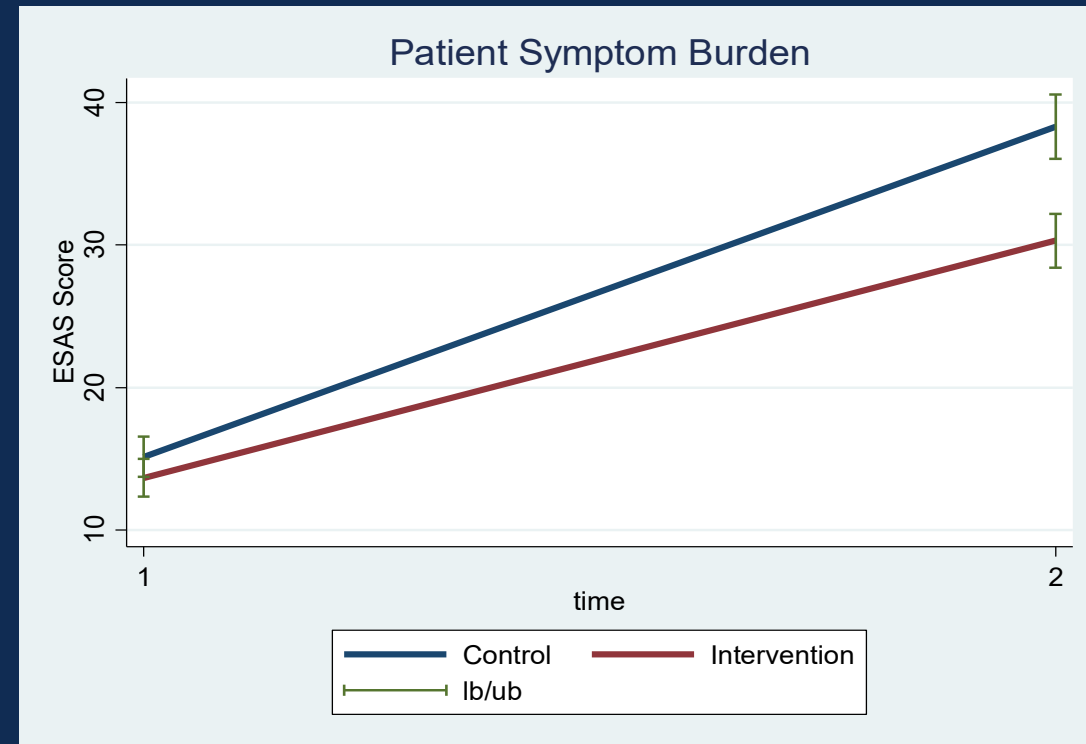
Δ FACT-BMT: -14.7 vs. -21.5
P = 0.04, Cohen's d = 2.9





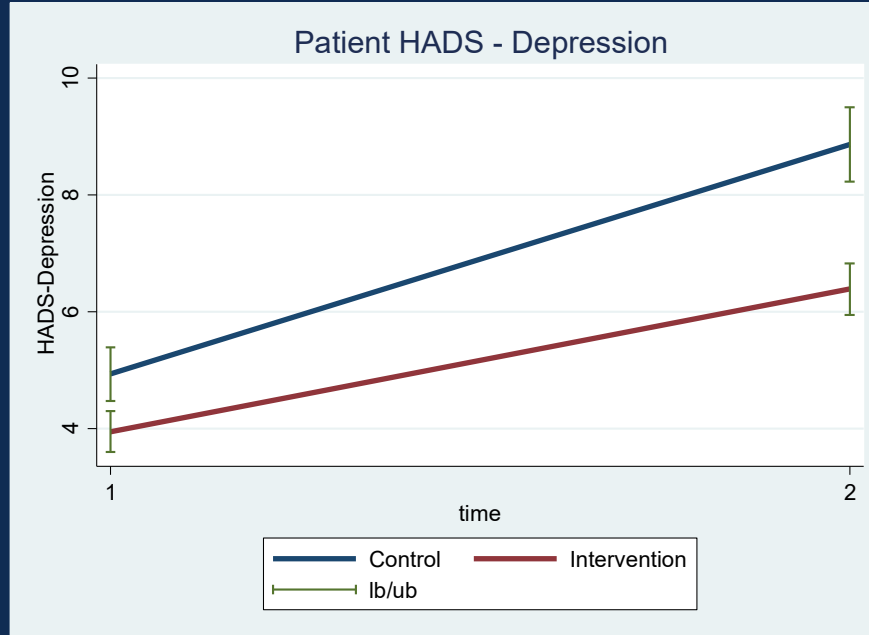
Patient Symptom Burden

Δ ESAS: 17.3 vs. 23.1
P = 0.03, Cohen's d = 0.4

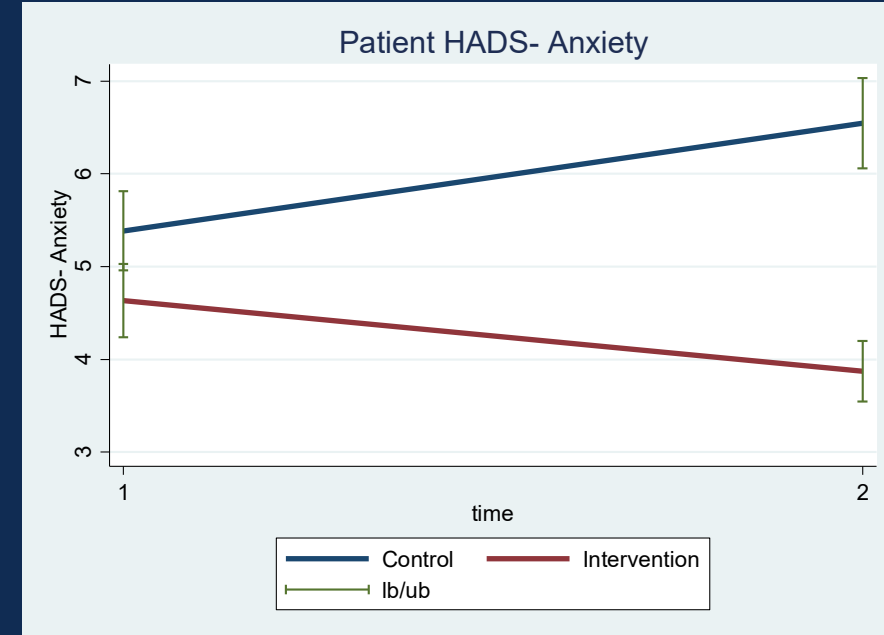




Patient Mood



Δ HADS-D: 2.4 vs. 3.9,
P = 0.02, Cohen's d = 0.4



Δ HADS-A: -0.8 vs. 1.1
P = 0.0006, Cohen's d = 0.6



Week-2 Outcomes

Week-2 Outcomes	Adjusted mean difference	95% CI	P-Value
FACT – BMT (primary outcome)	7.73	1.27 to 14.19	0.019
FACT – Fatigue	3.88	0.21 to 7.54	0.038
ESAS – Symptom burden	-6.26	-11.46 to -1.05	0.019
HADS – Depression symptoms	-1.74	-3.01 to -0.47	0.008
HADS – Anxiety symptoms	-2.26	-3.22 to -1.29	<0.001
PHQ-9 – Depression	-1.28	-2.82 to 0.27	0.104



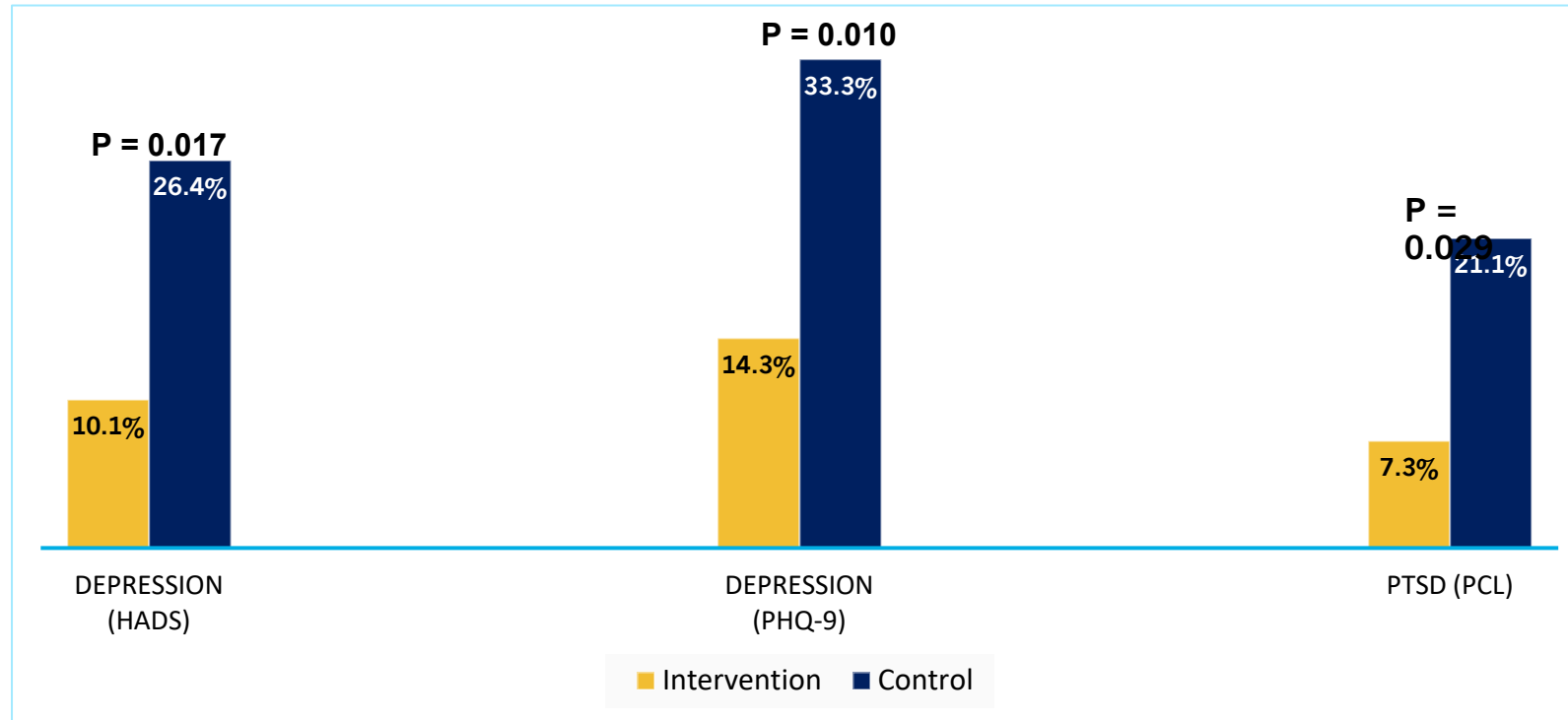
3 Month Outcomes

3 Month Outcomes	Adjusted mean difference	95%CI	P-Value
FACT – BMT	5.34	0.04 to 10.65	0.048
FACT – Fatigue	2.00	-1.08 to 5.09	0.202
ESAS – Symptom burden	-2.44	-6.29 to 1.41	0.212
HADS – Depression symptoms	-1.70	-2.75 to -0.65	0.002
HADS – Anxiety symptoms	-0.76	-1.73 to 0.23	0.130
PHQ-9 – Depression	-2.12	-3.42 to -0.814	0.002
PCL – PTSD symptoms	-4.35	-7.12 to -1.58	0.002

6-Month Outcomes

6 Month Outcomes	Adjusted Mean Difference	95% CI	P- Value
FACT – BMT	2.72	-2.96 to 8.39	0.346
FACT – Fatigue	0.10	-3.38 to 3.58	.957
HADS – Depression	-1.21	-2.26 to -0.16	0.024
HADS – Anxiety symptoms	-0.61	-1.69 to 0.47	0.267
PHQ-9 – Depression	-1.63	-3.08 to -0.19	0.027
PCL – PTSD Symptoms	-4.02	-7.18 to -0.86	0.013

Psychological Distress at 6-Months

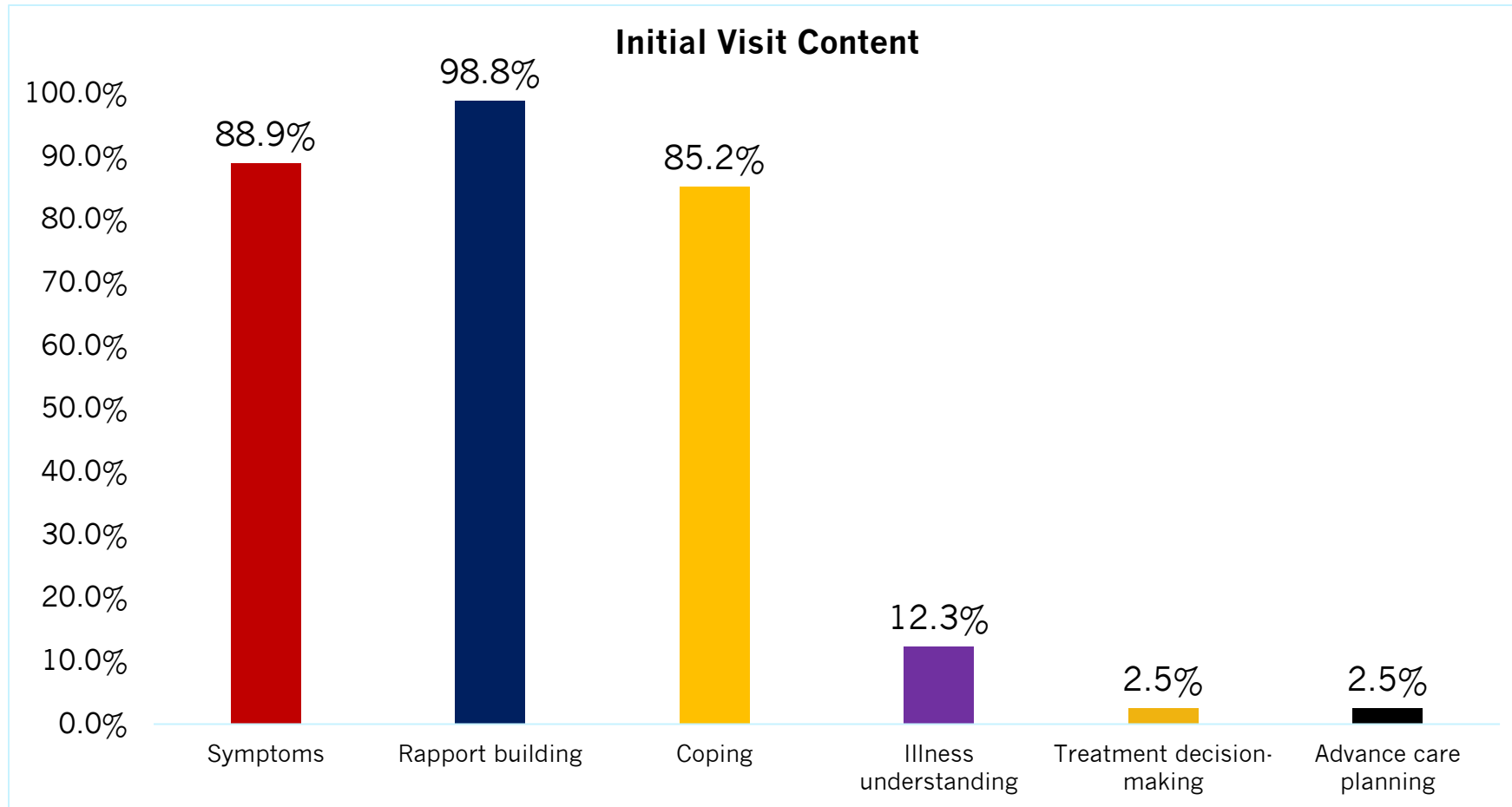


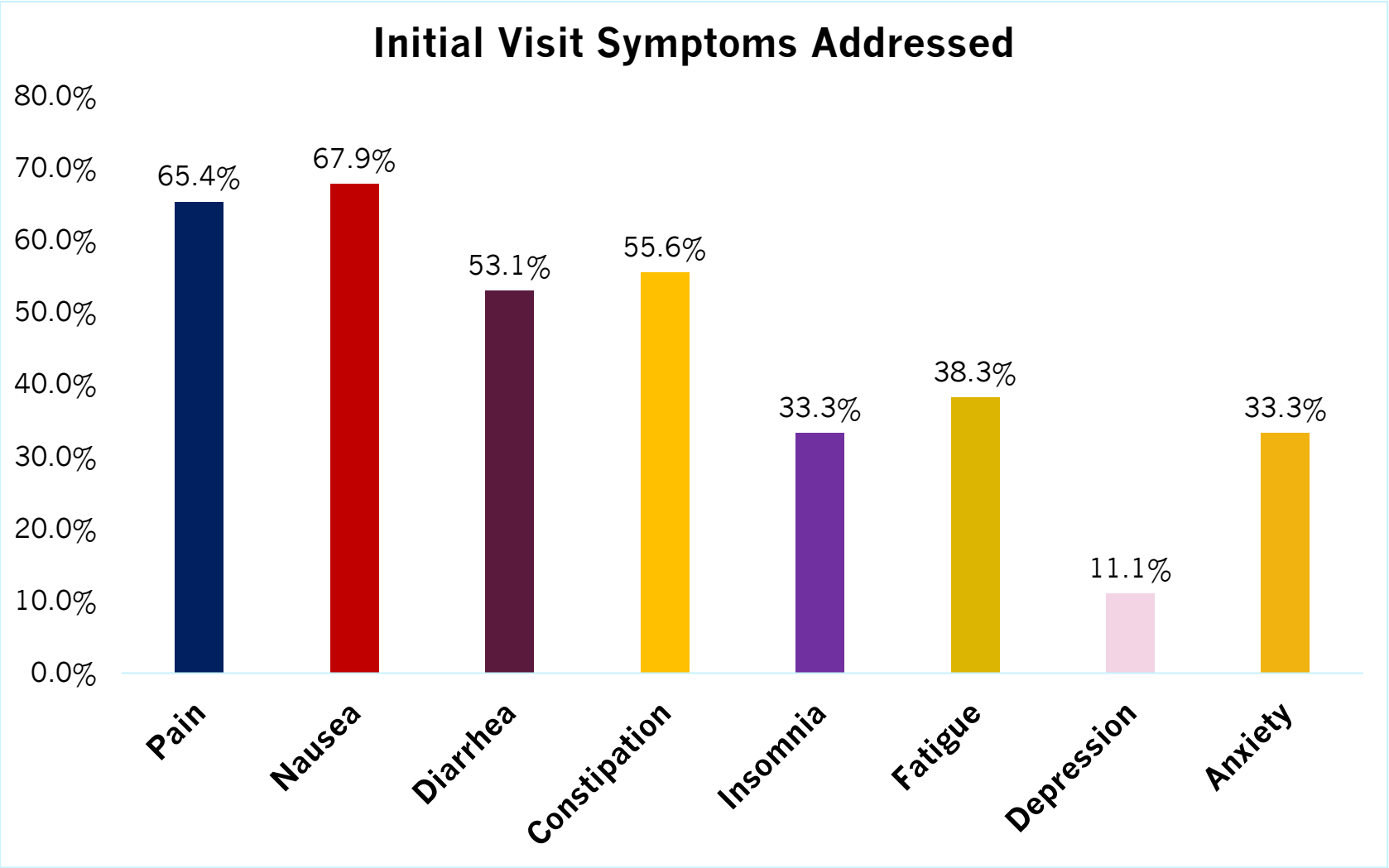
Caregiver Outcomes

2-week Caregiver Outcomes	Adjusted mean difference	95% CI	P-value
HADS-Depression	-1.65	-3.01 to -0.29	0.018
HADS-Anxiety	-0.14	-1.56 to 1.27	0.84
QOL	3.38	-1.59 to 8.35	0.180

Improvement in two domains of QOL

- **Coping:** adjusted mean difference = 1.01, **P = 0.009**
- **Administrative/finances:** adjusted mean difference = 0.67, **P = 0.029**







Multi-Site Randomized Trial of Integrated Palliative and Oncology Care for Patients with Acute Myeloid Leukemia (AML)

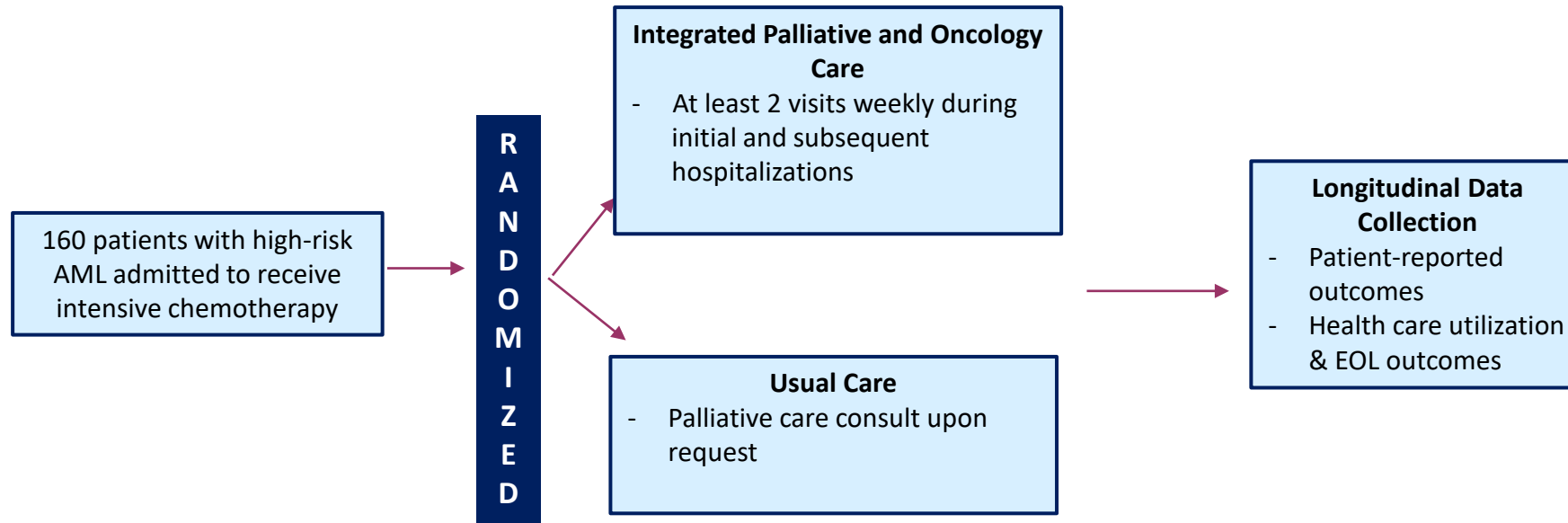
Areej El-Jawahri MD, Thomas W. LeBlanc MD, Alison Kavanaugh NP, Jason A. Webb MD, Vicki A. Jackson MD, Toby Campbell MD, Nina O'Connor MD, Selina Luger MD, Ellin Gafford MD, Jillian Gustin MD, Bhavana Bhatnagar MD, Amir Fathi MD, Gabriela Hobbs MD, Julie Foster NP, Showly Nicholson BS, Debra Davis RN BSN, Hilena Addis BS, Dagny Vaughn BA, Nora Horick MS, Joseph A. Greer PhD, Jennifer S. Temel MD

Areej El-Jawahri MD

1
0
4



Study Design



- Randomization is stratified by study site, and diagnosis (newly diagnosed vs. relapsed/refractory)
- **Sites:** MGH, Duke, Penn, Ohio State

Areej El-Jawahri MD

1
0
5



Patient Eligibility Criteria

- Hospitalized patients (age ≥ 18) with high-risk AML receiving intensive chemotherapy
- **Exclusion criteria:**
 - Patients with APML
 - Patients receiving non-intensive chemotherapy
 - Patients already receiving palliative care
 - Patients with major psychiatric or comorbid conditions

High-risk AML

- 1) Newly diagnosed ≥ 60 years
- 2) Antecedent hematologic disorder or therapy related
- 3) Relapsed or primary refractory AML

Areej El-Jawahri MD

1
0
6



Study Measures

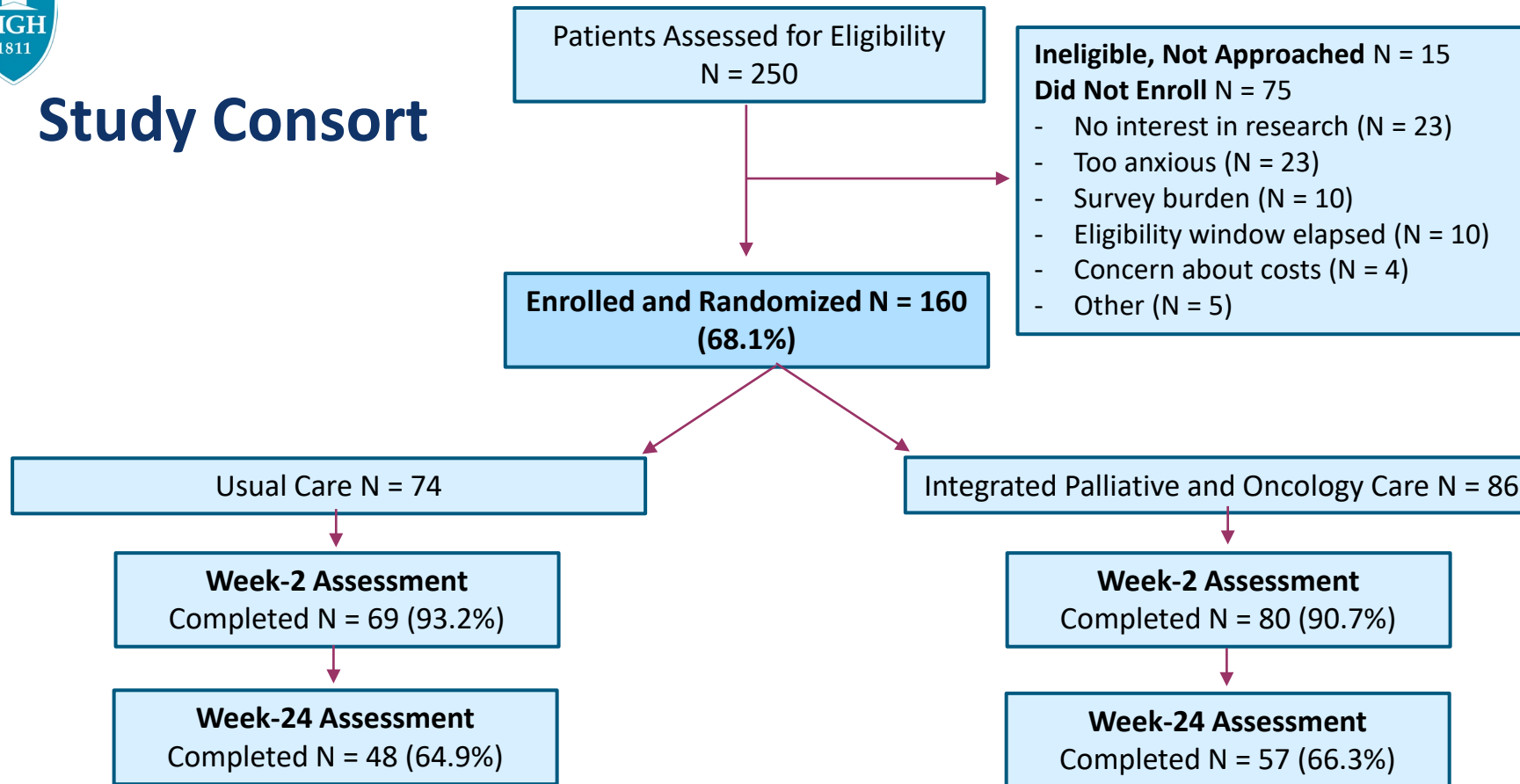
- Patient-reported outcomes measured at baseline, weeks 2, 4, 12, and 24
- **Primary endpoint:** QOL (FACT-Leukemia) at week-2
- **Secondary endpoints:**
 - Psychological distress (HADS and PHQ-9)
 - Symptom burden (ESAS)
 - PTSD symptoms (PTSD Checklist- Civilian Version)
 - EOL outcomes:
 - Patient-reported discussions of EOL care wishes
 - Hospitalizations in the last week of life
 - Chemotherapy administration in the last 30 days of life
 - Hospice utilization

Areej El-Jawahri MD

1
0
7



Study Consort



Areej El-Jawahri MD

1
0
9



Baseline Demographics

Patient Characteristics	Usual Care (N = 74)	Integrated Palliative and Oncology Care (N = 86)
Age, median (range)	65.2 (22.1-80.1)	63.0 (19.7-77.8)
Female sex, n (%)	27 (36.5%)	37 (43.0%)
Race, n (%)		
White	63 (85.1%)	75 (87.2%)
Black	7 (9.5%)	8 (9.4%)
American Indian	2 (2.7%)	2 (2.3%)
Asian	2 (2.7%)	0
Other	0	1 (1.2%)
Hispanic, n (%)	0 (0.0%)	5 (6.02%)
Diagnosis type, n (%)		
Newly diagnosed AML	50 (67.6%)	59 (68.6%)
Relapsed AML	16 (21.6%)	21 (24.4%)
Refractory AML	8 (10.8%)	6 (7.0%)

Areej El-Jawahri MD

1
1
0



Results

Week-2	Sample size	Group assignment	Adjusted mean score	95% CI	P-value
QOL (FACT-Leukemia)	139	Usual Care Intervention	107.59 116.45	101.45 - 113.74 110.69 - 122.21	0.039
Anxiety symptoms (HADS-A)	147	Usual Care Intervention	5.94 4.53	5.10 - 6.79 3.74 - 5.34	0.018
Depression symptoms (HADS-D)	147	Usual Care Intervention	7.20 5.68	6.26 - 8.14 4.80 - 6.56	0.021
Depressive syndrome (PHQ-9)	144	Usual Care Intervention	8.00 6.34	6.83 - 9.17 5.23 - 7.44	0.044
Symptom burden (ESAS)	146	Usual Care Intervention	32.82 28.24	28.58 - 37.06 24.23 - 32.25	0.123
PTSD symptoms (PCL- checklist)	146	Usual Care Intervention	31.69 27.79	29.56 - 33.82 27.78 - 29.80	0.009

Areej El-Jawahri MD

1
1
4

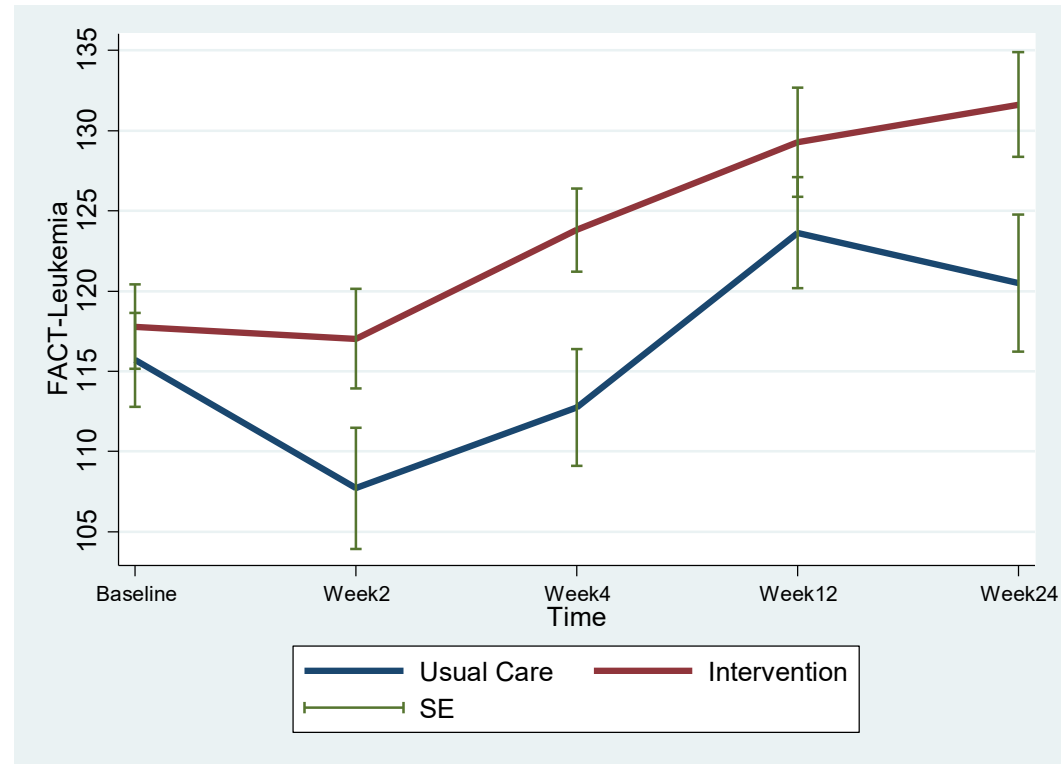


Results

QOL

Group # Time B = 2.35

95% CI 0.02–4.68, **P = 0.048**



Areej El-Jawahri MD

1
1
5

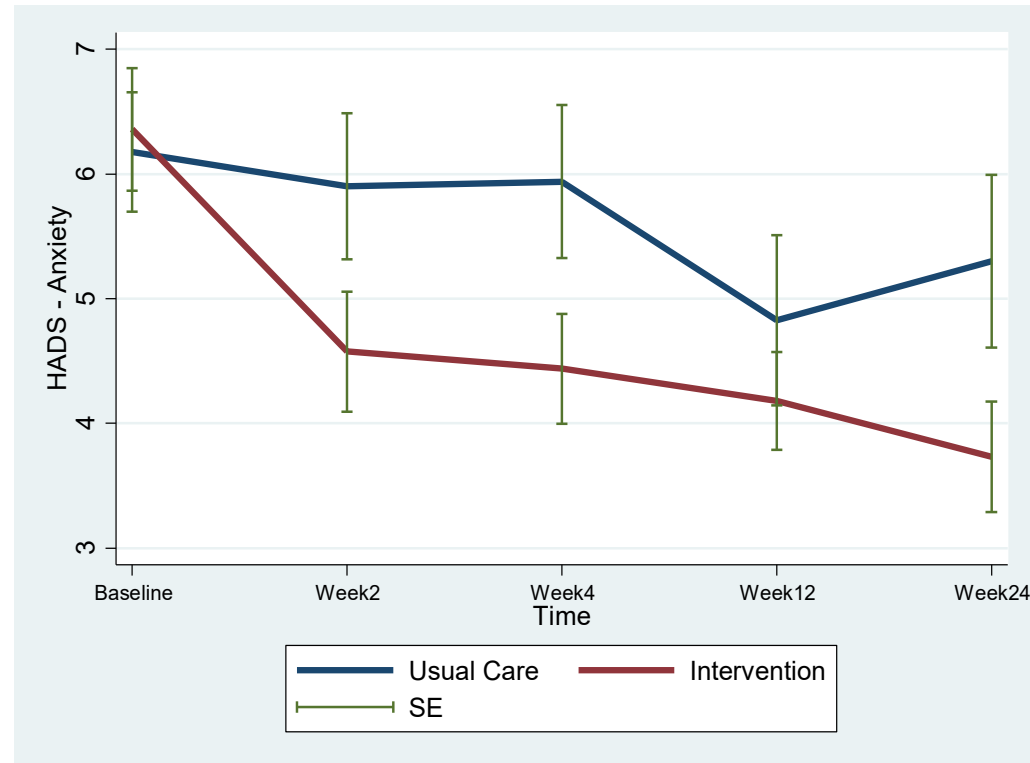


Results

Anxiety symptoms

Group # Time B = -0.38

95% CI -0.75 – -0.01, P = 0.042



Areej El-Jawahri MD

1
1
6

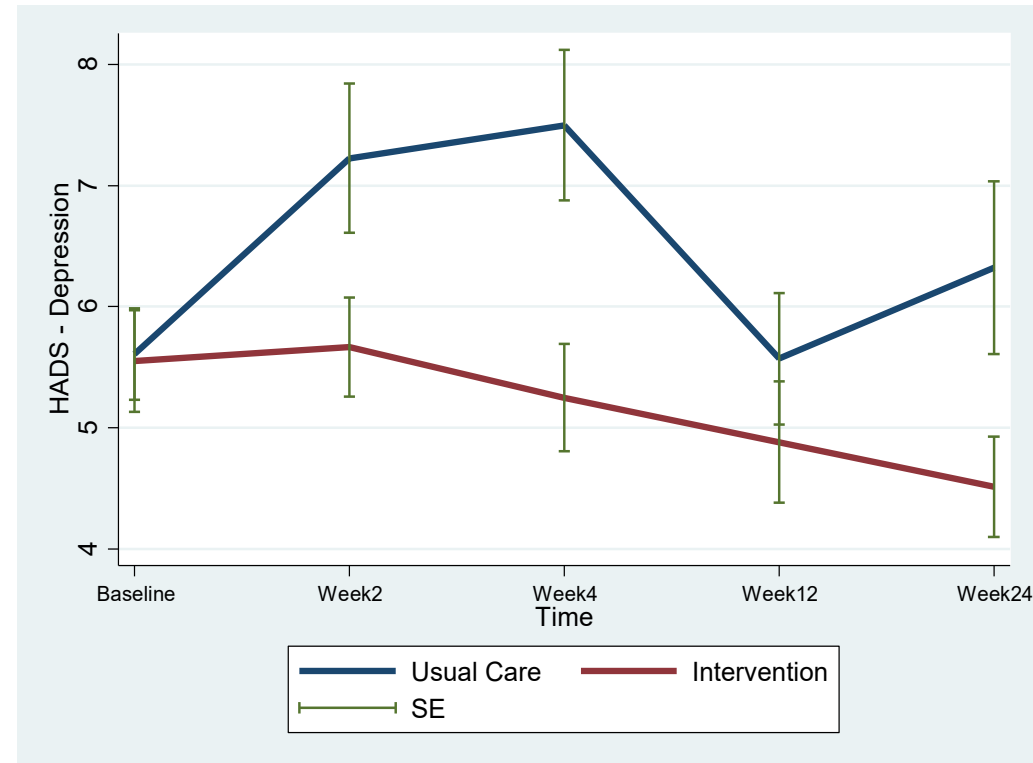


Results

Depression symptoms

Group # Time B = -0.42

95% CI -0.82 – -0.02, P = 0.039



Areej El-Jawahri MD

1
1
7

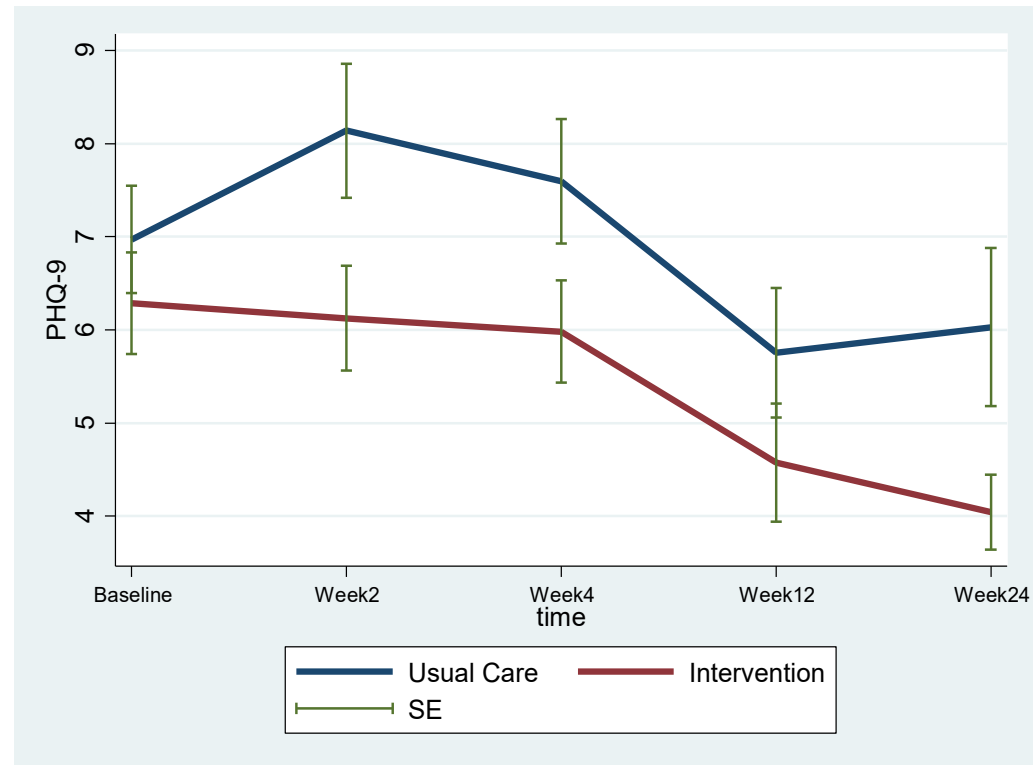


Results

Depression syndrome

Group # Time B = -0.21

95% CI -0.67 – 0.25, P = 0.375



Areej El-Jawahri MD

1
1
8

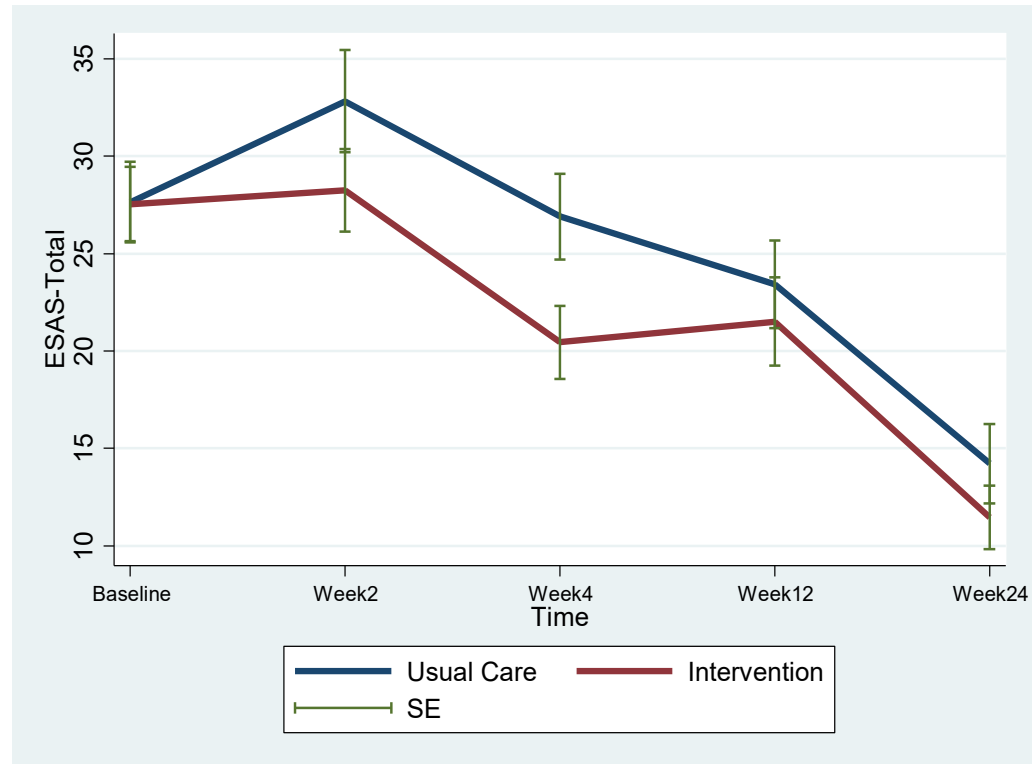


Results

Symptom burden

Group # Time B = -0.38

95% CI -2.09 – 1.32, P = 0.659



Areej El-Jawahri MD

1
1
9

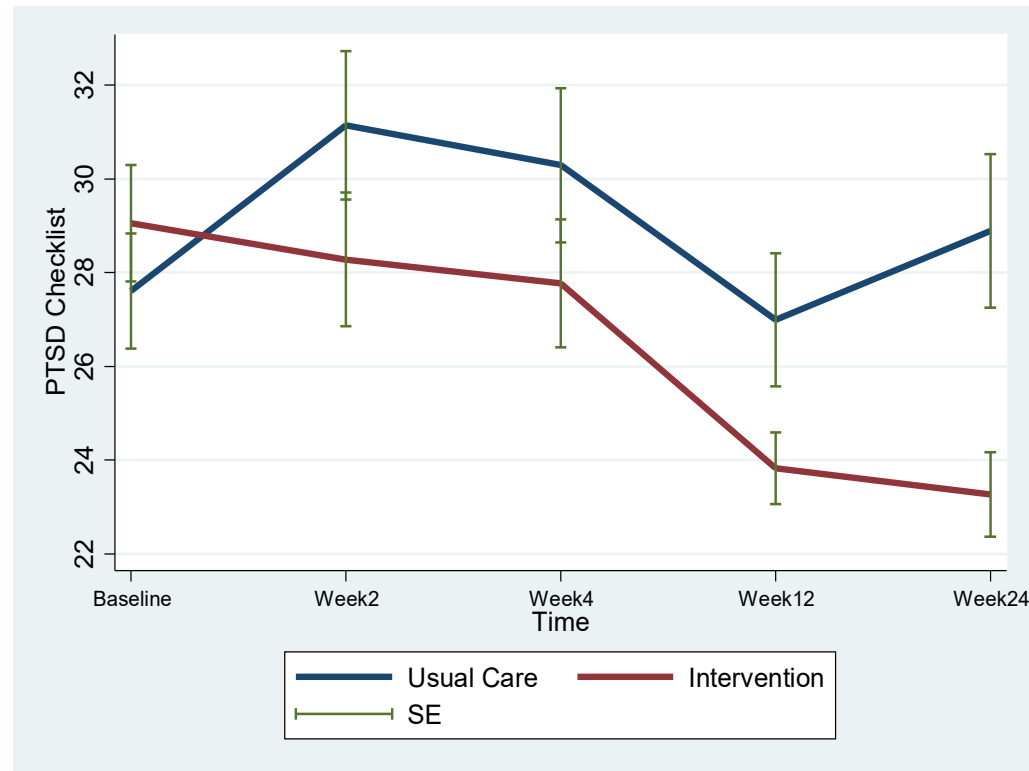


Results

PTSD symptoms

Group # Time B = -1.43

95% CI -2.34 – -0.54, P = 0.002



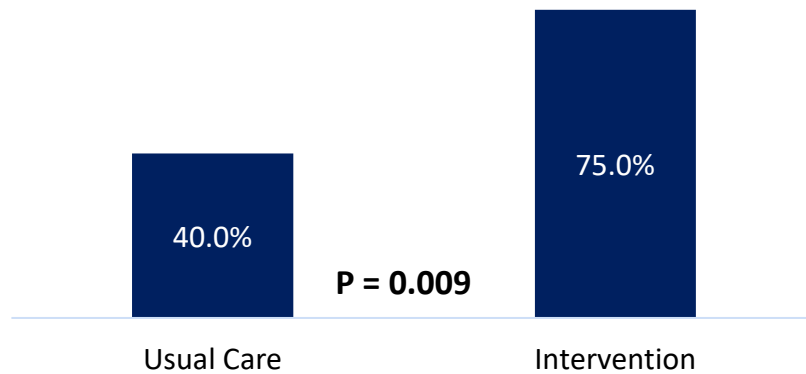
Areej El-Jawahri MD

1
2
0

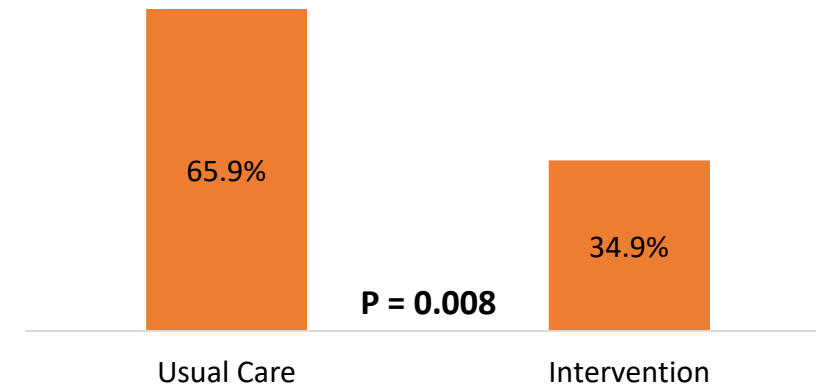


Results

**Patient-reported discussions of
EOL care wishes**



**Receipt of chemotherapy in the last
30 days of life**



- * 87 participants were deceased at 6-month follow up
- * No difference in hospitalizations at the EOL or hospice utilization

Areej El-Jawahri MD

1
2
1

Conclusions

Palliative care improves outcomes in hematology too, but we need more evidence

- **Novel intervention development, testing**
- **Other diseases**

Need for clinician education, behavior change

- **...and primary palliative care skill development**

Care model challenges remain; need for policy change

- **Transfusions, chemotherapy and hospice**

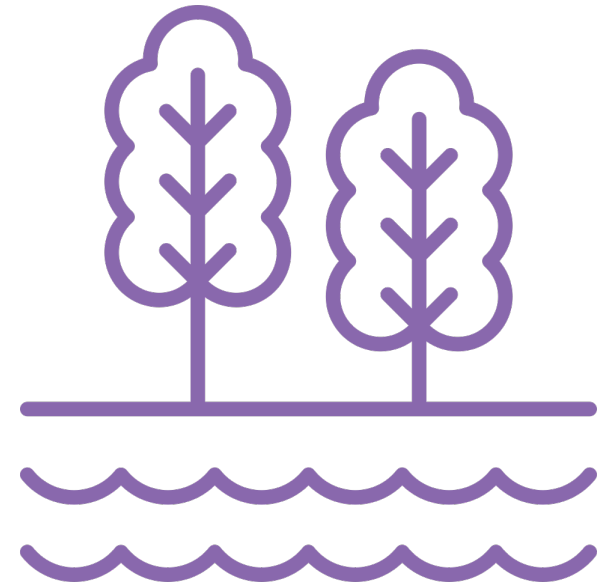
Implementation and dissemination is the next big challenge to overcome!

QUESTIONS AND DISCUSSION

Lunch



Welcome back!



Palliative Care and End-of-Life Task Force Update

Tom O'Neil, MD



Palliative Care and End-of-Life Task Force



- PCEOLTF meetings
- Survey
- Palliative radiation pathways
- VitalTalk announcement



VitalTalk

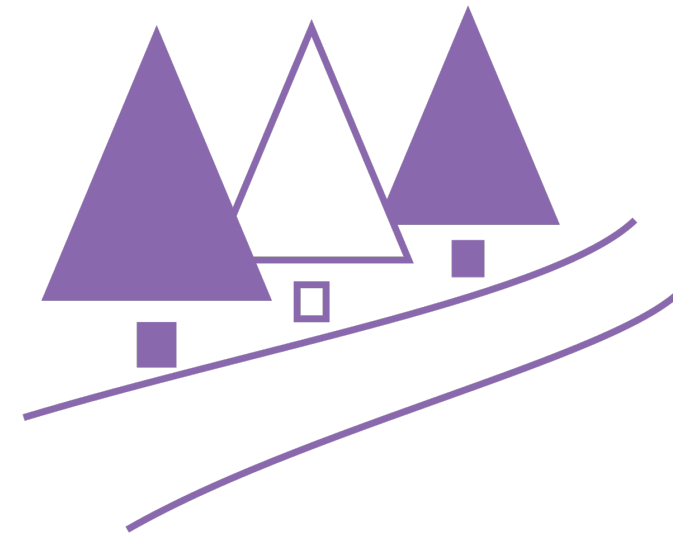
- **Application open June 26 – July 21, 2023**
- First-come, first-served basis*
- Two options offered:
 - **Navigating Serious Conversations**
This course is meant for professionals new to palliative care
 - **Mastering Tough Conversations**
This course is meant for professionals working with palliative care who are looking to enhance current knowledge and skillset

**Priority will be offered to representatives from practices with limited access to palliative care*



Palliative Radiation Pathways

Jennifer Griggs, MD, MPH



Palliative Radiation Collaboration



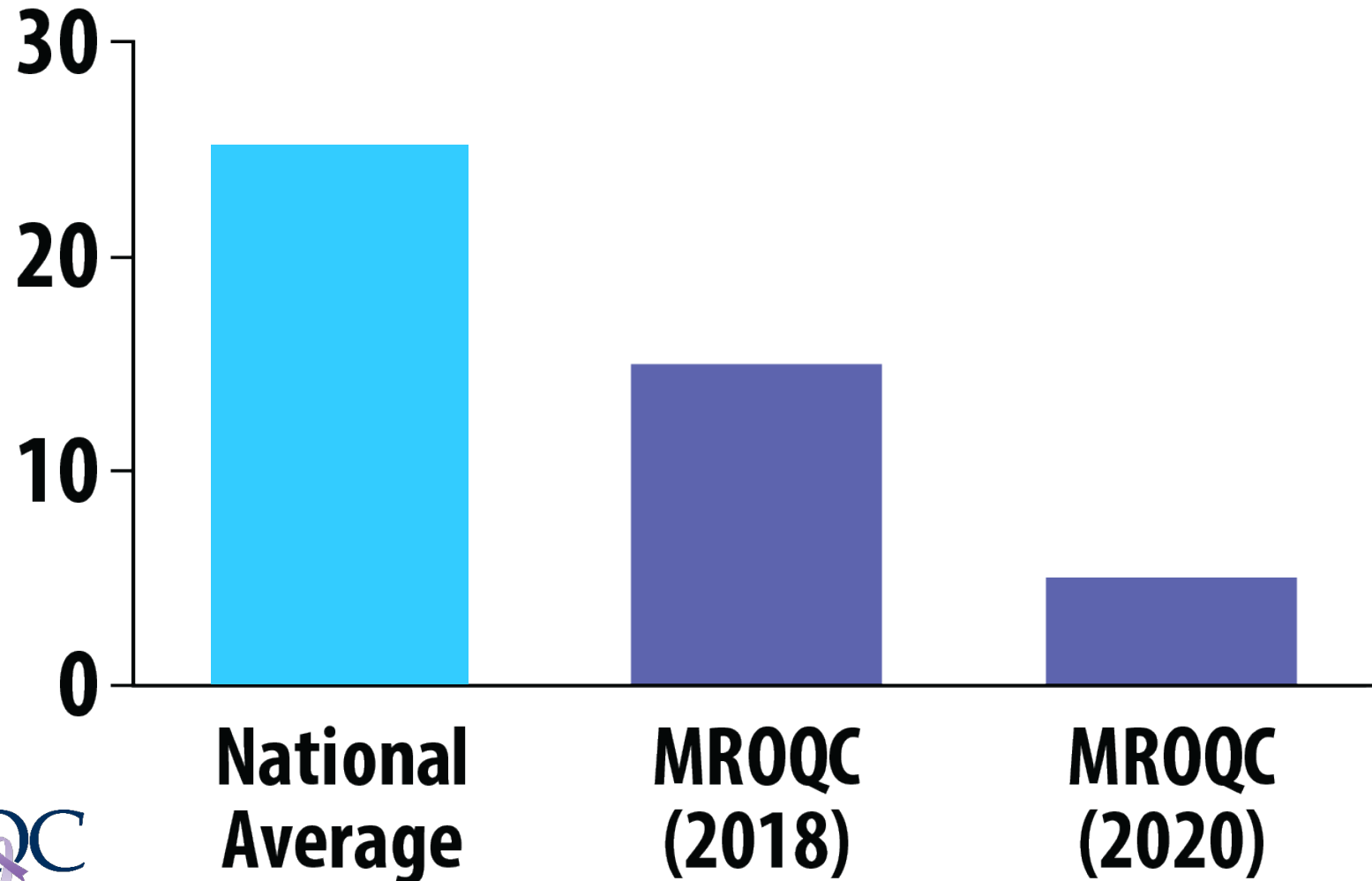
Bone Mets Working Group: Strategic Goals

MROQC

- ↓ Reduce variation in practice
- ↓ Reduce prolonged treatment courses
- ↑ Use of single fraction
- ↑ Appropriate use of technology



Bone Mets Rates of use of >10 fractions



Development of Pathways

Workgroup formed in 2019

- Radiation oncologists
- Hospice providers
- Palliative care providers
- Patients & caregivers

Development of Pathways

- Survey of radiation oncologists in 2019
- Workgroup meetings 2019-2020
- Identification of two major clinical scenarios for patients on hospice (or considering hospice)
 - Painful bone metastases
 - Bleeding amenable to radiation therapy
- Dissemination of pathways 2022-2023

Palliative Radiation

Oncology Patients with Bone Metastases



SCREENING CRITERIA

Life expectancy estimated to be ≥ 30 days	A patient is eligible for hospice care if s/he has an estimated life expectancy of 6 months or less. Life expectancy estimations depend on several factors, including type of cancer, overall health, and the presence of comorbidities.
Palliative Performance Scale (PPS) of $\geq 40\%$	<p>A useful tool in prognostication is the Palliative Performance Scale (PPS, scored 0–100 in 10-point increments) in which higher numbers indicate better function.</p> <p>The PPS assesses five domains:</p> <ol style="list-style-type: none">1. Ambulation (range, bed-bound to full)2. Activity (unable to work to normal)3. Self-care (completely dependent to completely independent)4. Intake (mouth care only to full diet)5. Level of consciousness (drowsy or coma to fully alert)
Localized pain (bone)	Localized bone pain of 3 or fewer sites with a known diagnosis of cancer.

Palliative Radiation

Oncology Patients with Bleeding



SCREENING CRITERIA

Bleeding must be amenable to radiation therapy

Sites of bleeding: head and neck, bladder, chest wall/skin, gastrointestinal or gynecologic region

Patients with a history of bleeding in whom recurrent bleeding could be anticipated

Stable vital signs as assessed by hospice physician

Palliative Radiation Pathways



Bone Metastases



Bleeding

- Goals of Treatment
- Treatment Planning
- Simulation and Treatment
- Timeframe Expectations
- Recommended Preparation of Patients
- Required Documentation



PALLIATIVE RADIATION FOR PATIENTS ON HOSPICE: VIDEO

<https://moqc.org/initiatives/clinical/palliative-radiation-therapy-pathway/>

Thank you.



Submit your questions:
slido.com
#3241 511

Henry Ford Health Center For Patient Reported Outcomes Measures

Steven Chang, MD FACS
Samantha Tam, MD FACS



Henry Ford Health

Center for Patient Reported Outcomes

- Cancer Service Line
- Orthopedic and Sports Medicine Service Line
- Neurosciences (Neurosurgery and Neurology) Service Line
- Primary Health
- Behavioral Health
- Otolaryngology Head and Neck Surgery



How did I get here? And why PROMs?



**PATIENT-ENGAGED
RESEARCH CENTER**

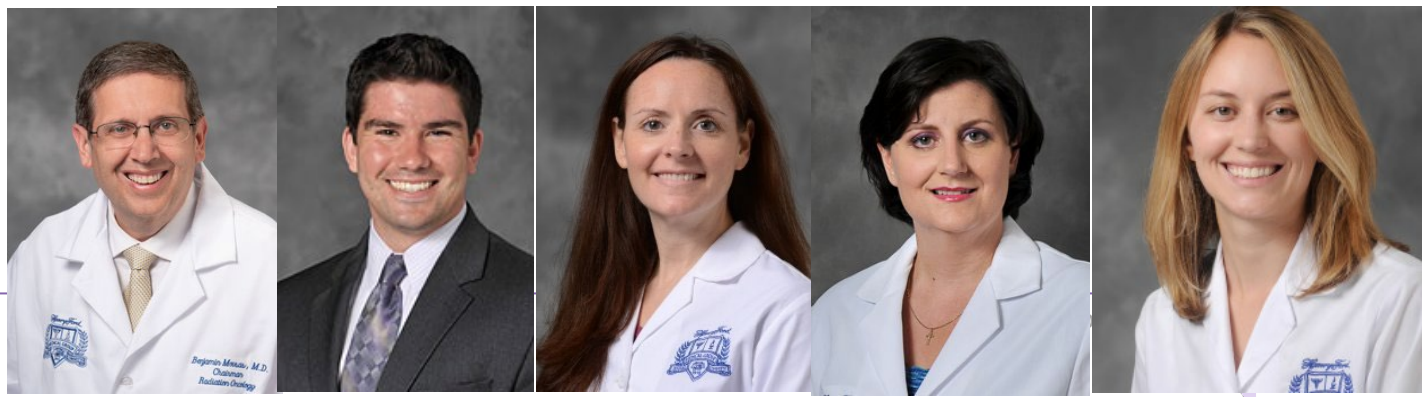
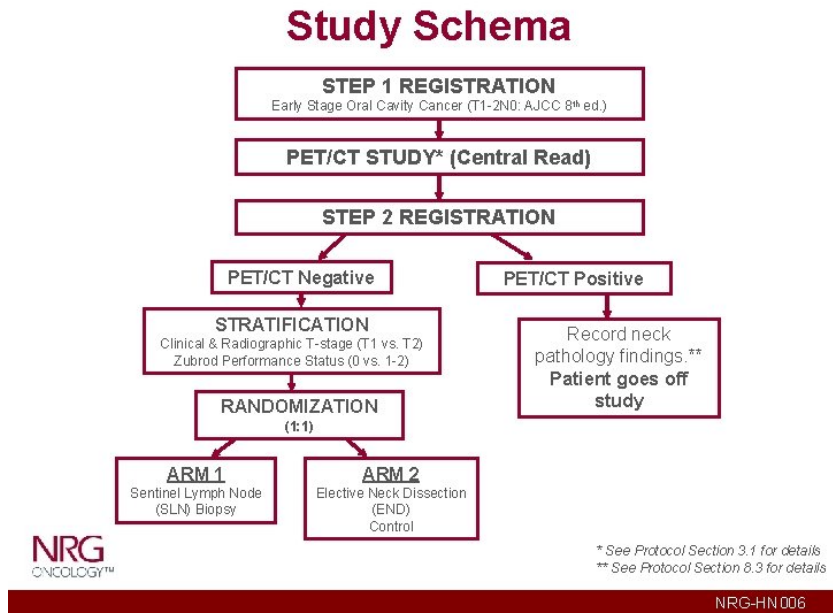


MiPCT
Greater Detroit Area
Health Council, INC.



HFCI Patient Reported Outcomes Task Force

MOQC
MICHIGAN ONCOLOGY
QUALITY CONSORTIUM



What are patient reported outcomes (PROs)?

- Any report of the status of a patient's health condition that comes directly from the patient, without interpretation of the patient's response by a clinician or anyone else¹

¹U.S. FDA. Guidance for Industry. Patient-Reported Outcome Measures: Use in Medical Product Development to Support Labeling Claims. Federal Register 2009;74(35):65132-133.

Why should standard cancer care
include patient reported quality of
life?

Quality of Life Supersedes the Classic Prognosticators for Long-Term Survival in Locally Advanced Non–Small-Cell Lung Cancer: An Analysis of RTOG 9801

Benjamin Movsas, Jennifer Moughan, Linda Sarna, Corey Langer, Maria Werner-Wasik, Nicos Nicolaou, Ritsuko Komaki, Mitchell Machtay, Todd Wasserman, and Deborah Watkins Bruner

Conclusion

In this analysis, baseline global QOL score replaced known prognostic factors as the sole predictor of long-term OS for patients with locally advanced NSCLC.

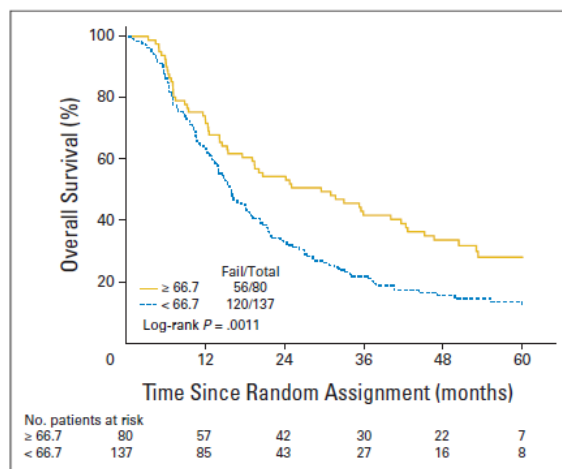


Fig 1. Overall survival rates based on the baseline European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire C30 global quality-of-life (QOL) score (5-year overall survival of 27% v 11% for global QOL scores above and below the median level, respectively).

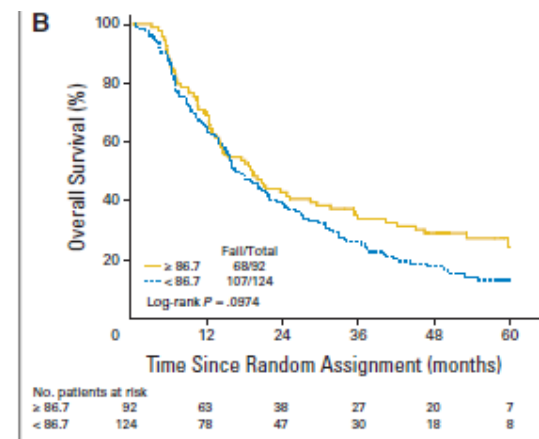
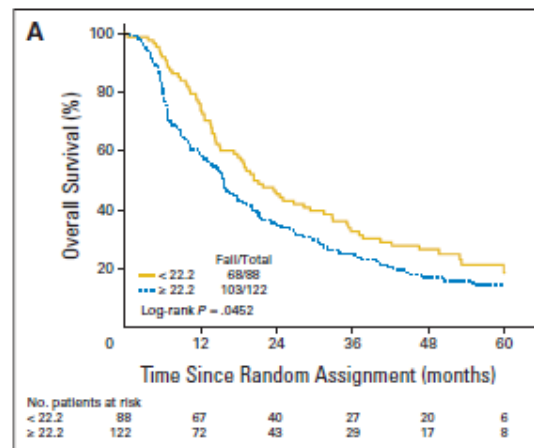


Fig 2. (A) Overall survival (OS) rates based on the baseline European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire–Lung Cancer 13 (EORTC QLQ LC-13) dyspnea score (5-year OS of 15% v 19% for EORTC QLQ LC-13 dyspnea scores above and below the median level, respectively). (B) OS rates based on the baseline EORTC QLQ-C30 physical functioning score (5-year OS of 23% v 12% for EORTC QLQ-C30 physical functioning scores above and below the median level, respectively).

Quality of life supersedes the classic prognosticators for long-term survival in locally advanced non-small-cell lung cancer: an analysis of RTOG 9801.

Movsas B, Moughan J, Sarna L, Langer C, Werner-Wasik M, Nicolaou N, Komaki R, Machtay M, Wasserman T, Bruner DW.

J Clin Oncol. 2009 Dec 1;27(34):5816-22. doi: 10.1200/JCO.2009.23.7420. Epub 2009 Oct 26. PMID: 19858383

Original Investigation

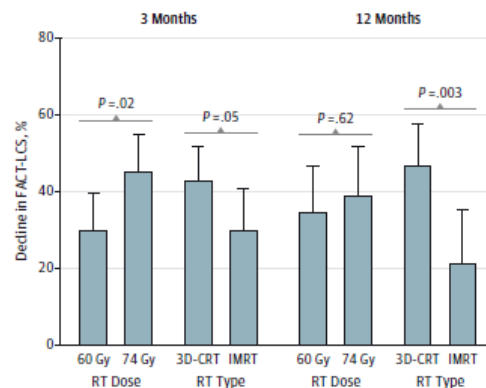
Quality of Life Analysis of a Radiation Dose-Escalation Study of Patients With Non-Small-Cell Lung Cancer

A Secondary Analysis of the Radiation Therapy Oncology Group O617 Randomized Clinical Trial

Benjamin Movsas, MD; Chen Hu, PhD; Jeffrey Sloan, PhD, HSR; Jeffrey Bradley, MD; Ritsuko Komaki, MD; Gregory Masters, MD; Vivek Kavadi, MD; Samir Narayan, MD; Jeff Michalski, MD; Douglas W. Johnson, MD; Christopher Koprowski, MD; Walter J. Curran Jr, MD; Yolanda I. Garces, MD; Rakesh Gaur, MD; Raymond B. Wynn, MD; John Schallenkamp, MD; Daphna Y. Gelblum, MD; Robert M. MacRae, MD; Rebecca Paulus, BS; Hak Choy, MD

Conclusions and Relevance—Despite few differences in provider-reported toxicity between arms, QOL analysis demonstrated a clinically meaningful decline in QOL on the 74Gy arm at 3 months, confirming the primary QOL hypothesis. Baseline QOL was an independent prognostic factor for survival.

Figure 2. Decline in Patient-Reported Quality of Life by Type and Dose of RT



FACT-LCS indicates Functional Assessment of Cancer Therapy–Lung Cancer Subscale; IMRT, intensity-modulated RT; RT, radiation therapy; 3D-CRT, 3-dimensional conformal RT.

Table 3. Multivariate Cox Model of Overall Survival^a

Covariate	Comparison	Standard-Dose Dead/Total ^b	High-Dose Dead/Total ^c	HR (95 CI)	P Value ^d
Radiation level	High dose vs standard dose (RL)	97/155	106/147	1.42 (1.07-1.87)	.01
Cetuximab assignment	No cetuximab vs cetuximab (RL)	90/133	133/169	0.90 (0.68-1.19)	.44
PTV	Continuous	203/302		1.001 (1.000-1.001)	.04
Heart V5	Continuous	203/302		1.007 (1.002-1.012)	.01
FACT-TOI ^e	Continuous	203/302		0.901 (0.813-0.998)	.046

Abbreviations: FACT, Functional Assessment of Cancer Therapy; heart V5, volume of heart receiving 5 Gy or more radiation; HR, hazard ratio; PTV, planning target volume; RL, reference level; TOI, Trial Outcome Index.

^a Underlying multivariate model developed in the primary end point analysis.¹

^b For standard-dose group or cetuximab group.

^c For high-dose group or no cetuximab group.

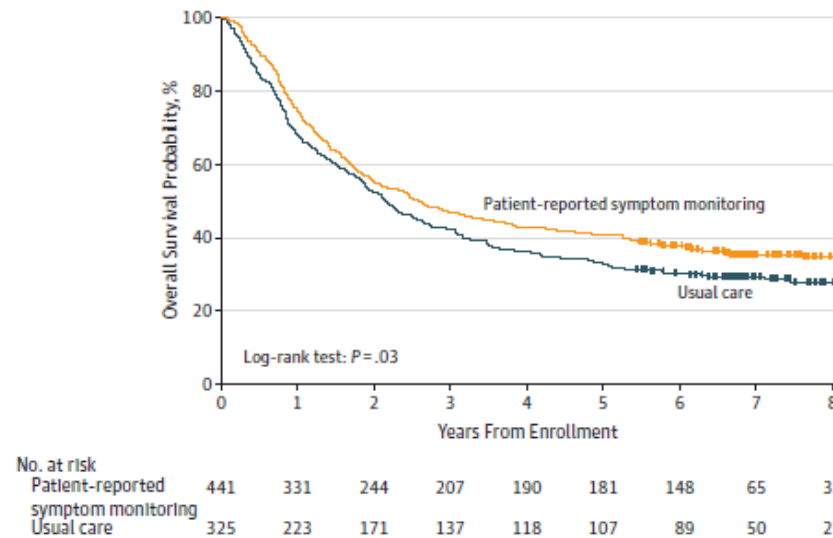
^d Two-sided P value.

^e Baseline FACT-TOI, every 10 points.

Movsas B, Hu C, Sloan J, Bradley J, Komaki R, Masters G, Kavadi V, Narayan S, Michalski J, Johnson DW, Koprowski C, Curran WJ Jr, Garces YI, Gaur R, Wynn RB, Schallenkamp J, Gelblum DY, MacRae RM, Paulus R, Choy H. Quality of Life Analysis of a Radiation Dose-Escalation Study of Patients With Non-Small-Cell Lung Cancer: A Secondary Analysis of the Radiation Therapy Oncology Group 0617 Randomized Clinical Trial. *JAMA Oncol*. 2016 Mar;2(3):359-67. doi: 10.1001/jamaoncol.2015.3969. PMID: 26606200

Overall Survival Results of a Trial Assessing Patient-Reported Outcomes for Symptom Monitoring During Routine Cancer Treatment

Figure. Overall Survival Among Patients With Metastatic Cancer Assigned to Electronic Patient-Reported Symptom Monitoring During Routine Chemotherapy vs Usual Care



Crosses indicate censored observations. Enrollment in the patient-reported symptom monitoring group was enriched for a preplanned subgroup with low baseline computer experience as part of a feasibility substudy with a 2:1 randomization ratio in that subgroup ($N = 227$) and a 1:1 ratio in the computer-experienced subgroup ($N = 539$), yielding 441 participants in the patient-reported symptom monitoring group, and 325 in the usual care group. With a minimum follow-up of 5.4 years, median follow-up was 6.9 years (interquartile range, 6.5-7.7) for the electronic patient-reported symptom monitoring group and 7 years (interquartile range, 6.6-8.1) for the usual care group.

jama.com

JAMA Published online June 4, 2017

© 2017 American Medical Association. All rights reserved.

Integration of PROs into the routine care of patients with metastatic cancer was associated with increased survival compared with usual care.

Overall Survival Results of a Trial Assessing Patient-Reported Outcomes for Symptom Monitoring During Routine Cancer Treatment.

Basch E, Deal AM, Dueck AC, Scher HI, Kris MG, Hudis C, Schrag D.

JAMA. 2017 Jul 11;318(2):197-198. doi: 10.1001/jama.2017.7156. No abstract available.

PMID: 28586821

Why should standard cancer care include patient reported outcomes?

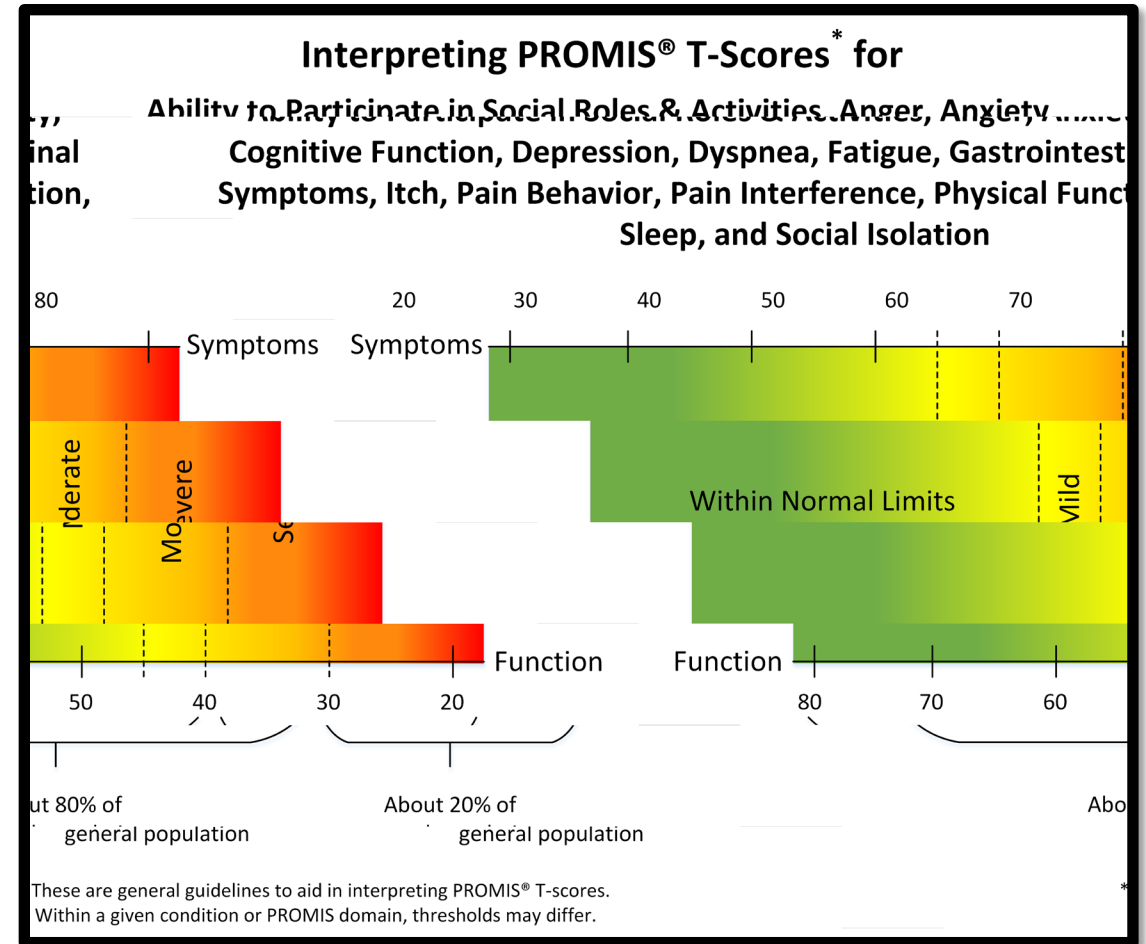
- Patient reported QOL is **predictive** of survival and a **better** predictor of survival than traditional indicators like stage
- Physician reported QOL is **different** and is not predictive of survival
- Real-time patient reported QOL monitoring **improved survival**



HF Cancer Patient Reported QOL

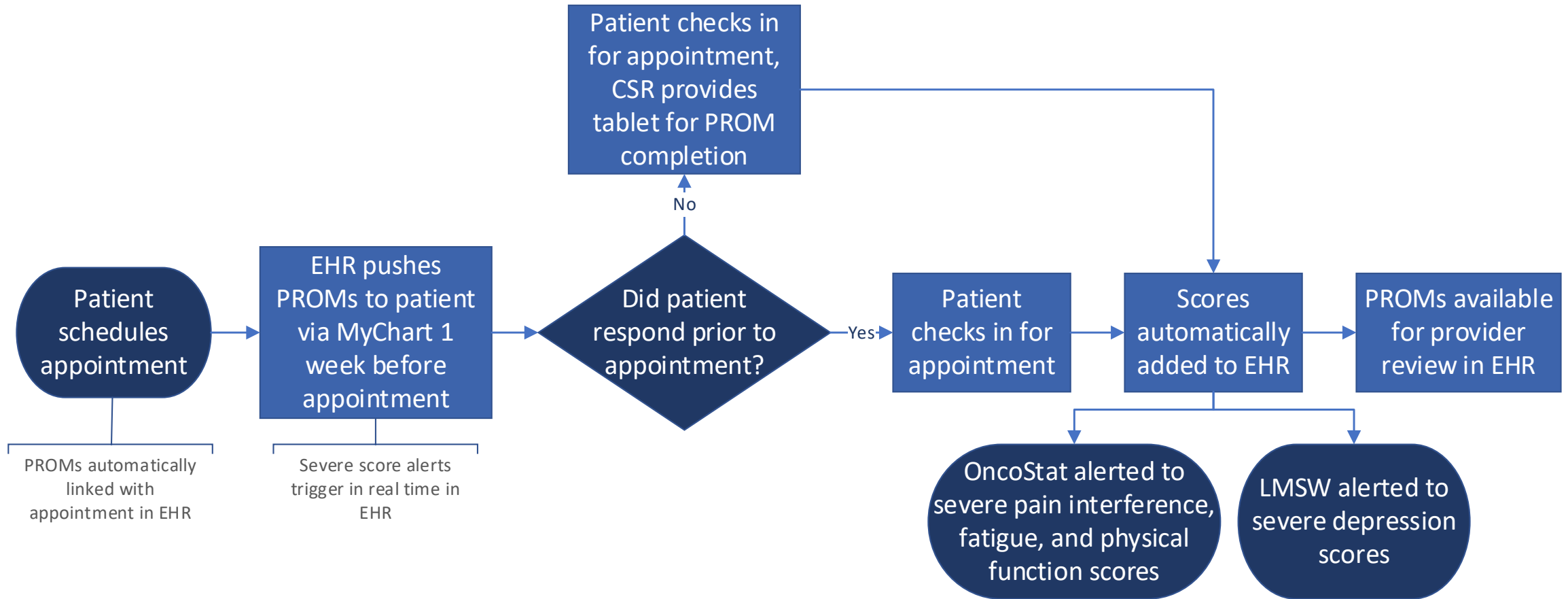
REVIEW of the Instrument

- Quality of Life domains assessed:
 - Fatigue, pain interference, physical function, depression
- NIH PROMIS CAT instrument:
 - Patient-Reported Outcomes Measurement Information Systems Computer Adaptive Test
 - Completion times range from 2-4 minutes
- All outpatient cancer visits



HF Cancer Patient Reported QOL

REVIEW of Clinic Workflow



Physician View in Epic

Hyperspace - DETC OTOLARYNGO 12 4 Procedure Prep 1 : Hospital Chart Completion 144

Chart Review Snapshot Active Plan Questionnaires Doc List Screening Review Flowsheets Plan Results MAR Notes Wrap-Up HM Synopsis Advanced Care Plan Questionnaire A... Rooming

8/3/2022 visit with for PRE-CHEMO - Pre chemo Taxol / Carbo

Visit Info Vitals Care Everywhere Allergies Verify Rx Benefits Home Meds

Visit Information

Chief Complaint
Pre-chemo

Breast Cancer

Recent Visits with
None

Other Visits in Hematology and Oncology

Date	Provider	Primary Dx
07/08/2022		Malignant neoplasm of upper-outer quadrant of left breast in male, estrogen receptor negative (CMS-hcc)
06/09/2022		Malignant neoplasm of upper-outer quadrant of left breast in female, estrogen receptor negative (CMS-hcc)
06/09/2022		Malignant neoplasm of upper-outer quadrant of left breast in female, estrogen receptor negative (CMS-hcc)

Other Visits in Hematology and Oncology

Date	Provider	Primary Dx
07/08/2022		Malignant neoplasm of upper-outer quadrant of left breast in male, estrogen receptor negative (CMS-hcc)
06/09/2022		Malignant neoplasm of upper-outer quadrant of left breast in female, estrogen receptor negative (CMS-hcc)
06/09/2022		Malignant neoplasm of upper-outer quadrant of left breast in female, estrogen receptor negative (CMS-hcc)

Vitals

+ New Reading

Flowsheets

Questionnaires History Domestic Abuse

Questionnaires

Hf Myc Promis Cat V1.1-Pain Interference

Question	8/3/2022 1:41 PM EDT - Filed by Patient
How much did pain interfere with your day to day activities?	Very much
How much did pain interfere with your ability to participate in social activities?	Very much
How often did pain keep you from socializing with others?	Always
How much did pain interfere with your relationships with other people?	Very much
How difficult was it for you to take in new information because of pain?	Very much
How often was your pain so severe you could think of nothing else?	Often
PROMIS Pain Interference T-Score (range: 10 - 90) (range: 10 - 90)	78 (severe)

Hf Myc Promis Cat V1.0-Fatigue

Question	8/3/2022 1:42 PM EDT - Filed by Patient
How often did you have to push yourself to get things done because of your fatigue?	Always
How run-down did you feel on average?	Quite a bit
I have trouble starting things because I am tired	Quite a bit
How much were you bothered by your fatigue on average?	Quite a bit
PROMIS Fatigue T-Score (range: 10 - 90)	67 (moderate)

Hf Myc Promis Cat V1.0-Depression

Question	8/3/2022 1:44 PM EDT - Filed by Patient
I felt depressed	Always
I felt hopeless	Always
I felt worthless	Always
I felt helpless	Often
PROMIS Depression T-Score (range: 10 - 90)	76 (severe)

Hf Myc Promis Cat V2.0-Physical Function

Question	8/3/2022 1:48 PM EDT - Filed by Patient
Does your health now limit you in doing two hours of physical labor?	Quite a lot
Does your health now limit you in doing yard work like raking leaves, weeding, or pushing a lawn mower?	Cannot do
Are you able to do chores such as vacuuming or yard work?	With much difficulty
Are you able to carry a laundry basket up a flight of stairs?	Unable to do
PROMIS Physical Function T-Score (range: 10 - 90)	33 (moderate dysfunction)

+ ADD ORDER + ADD DX (0) PRINT AVS 1 SIGN VIS

PSYCH: Cooperative.

Patient Reported Quality of Life Program

2021 Accomplishments

Service Line Rollout

- Cancer Pavilion
- Hematology Oncology
- Radiation Oncology

Key Partnerships

- OncoStat
- Oncology Social Work
- Psych-Onc
- Palliative Medicine
- Cancer Pain
- Advanced Illness Management (Jackson)
- Disease team leaders

- 48 HFH Cancer Outpatient Clinics
- ~174 providers
- 9/1/20 – 8/31/22
 - # PROMs completed: 73,064
 - # patients: 12,170
 - # patients completing at >1 timepoints: 4,299
 - Method of completion MyChart: 52%; iPad: 48%

HFCI Process: Severe Pain Interference Scores

Question?

- HFH PROs: Steven Chang, M.D., Theresa Zetavia
- OncoStat: Cindy Litvich, Ahmad Mattour, M.D., and Chris Bissell
- Palliative Medicine: Kristen Chastain, M.D., Pauline Do
- Cancer Pain: Sarah Money, M.D., Vince Lehmann
- HFH Supportive Oncology Services: Danielle Nelson

Documentation

- OncoStat: utilize the OncoStat (Intake) Assessment located in the Oncology Tools tab in Epic

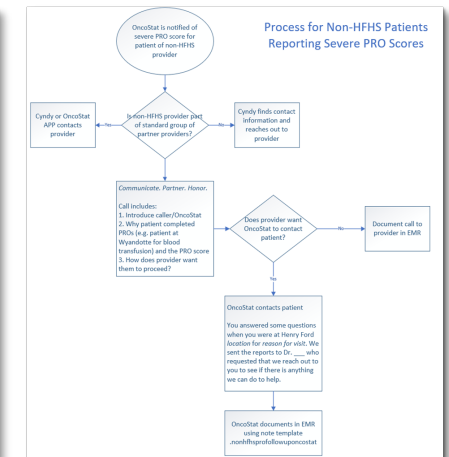
Severe Pain Interference Guidance

Physical Function	Normal	Mild	Moderate	Severe
Type of Pain	Cancer/ Pain related	Cancer/ Pain related	Cancer/ Pain related	Cancer/ Pain related
Unstaged	Cancer Pain	Cancer Pain	Cancer Pain	Cancer Pain
Stage I	Cancer Pain	Cancer Pain	Cancer Pain	Cancer Pain
Stage II	Cancer Pain	Cancer Pain	Cancer Pain	Cancer Pain
Stage III	Cancer Pain	Cancer Pain	Cancer Pain	Cancer Pain
Stage IV	Cancer Pain	Cancer Pain	Cancer Pain	Cancer Pain

Clinic Locations

- Cancer Pain
 - Henry Ford Cancer Institute – Detroit (Cancer Pavilion)
 - 2800 W Grand Blvd, Detroit, MI 48202
 - Henry Ford Hospital
 - 15101 E 12 Mile Rd, Detroit, MI 48202
 - Henry Ford Medical Center – Ford Road
 - 5500 Auto Club Dr, Dearborn, MI 48126
 - Henry Ford West Bloomfield Hospital
 - 6777 W Maple Rd, West Bloomfield, MI 48322
 - Henry Ford Medical Center – Columbia
 - 39500 W 12 Mile Rd, Novi, MI 48377
 - Henry Ford Medical Center – Lakeside
 - 14000 Hall Rd, Sterling Heights, MI 48313

HFH Location	Epic Pool	LMSW Team Member
Columbus, West Bloomfield	HFHS HFH North Market Oncology Social Work Depression Scores	Gwen Roediger
Macomb, Auburn	HFHS HFH North Market Oncology Social Work Depression Scores	Tara Forton
Detroit - Cancer Pavilion	HFHS HFH CANPAM Oncology Social Work Depression Scores	Madeline Stamper, Tyree Woods, Jessica Fisher, Ellen Kachalsky, Kamilla Delrosch, Krista Plovers
Wyandotte, Brownstown (DCO)	HFHS HFH South Market Oncology Social Work Depression Scores	Corey Lockridge, Ted Varkas
Fairlane	HFHS HFH South Market Oncology Social Work Depression Scores	Corey Lockridge, Ted Varkas
Alliance	HFHS HFH Alliance Oncology Social Work Depression Scores	Cinnamon Branigan



Patient Story:

Scores may correlate with need for admission

Promis Scores	3/24/2021	2/5/2021
PROMIS Pain Interference T-Score (range: 10 - 90)	68 (moderate)	68 (moderate)
PROMIS Physical Function T-Score	23 (severe dysfunction)	34 (moderate dysfunction)
PROMIS Depression T-Score	71 (severe)	54 (within normal limits)
PROMIS Fatigue T-Score	85 (severe)	68 (moderate)

- Unresectable recurrent carcinoma of maxillary sinus on systemic treatment
- Presented to surgical clinic for routine follow up.
- PRO scores reviewed after visit by surgeon during documentation
- Scores communicated to treating medical oncologist
- Chemo treatment was withheld
- Patient was admitted and ultimately referred to Hospice

Patient Story:

Additive to survivorship/surveillance

- 71yo male, T1N1M0 squamous cell carcinoma of lateral tongue treated with surgery followed by RT secondary to perineural invasion
- Cancer surveillance completed virtually; PRO completed via MyChart
- APP notified and triaged severe pain score
- Patient presented for in-person visit as result of APP triage
- Clinical examination revealed early osteoradionecrosis of mandible

Promis Scores	10/2/2021
PROMIS Pain Interference T-Score (range: 10 - 90)	74 (severe)
PROMIS Physical Function T-Score	44 (mild dysfunction)
PROMIS Depression T-Score	56 (mild)
PROMIS Fatigue T-Score	51 (within normal limits)



Patient Story:

Referrals to supportive oncology

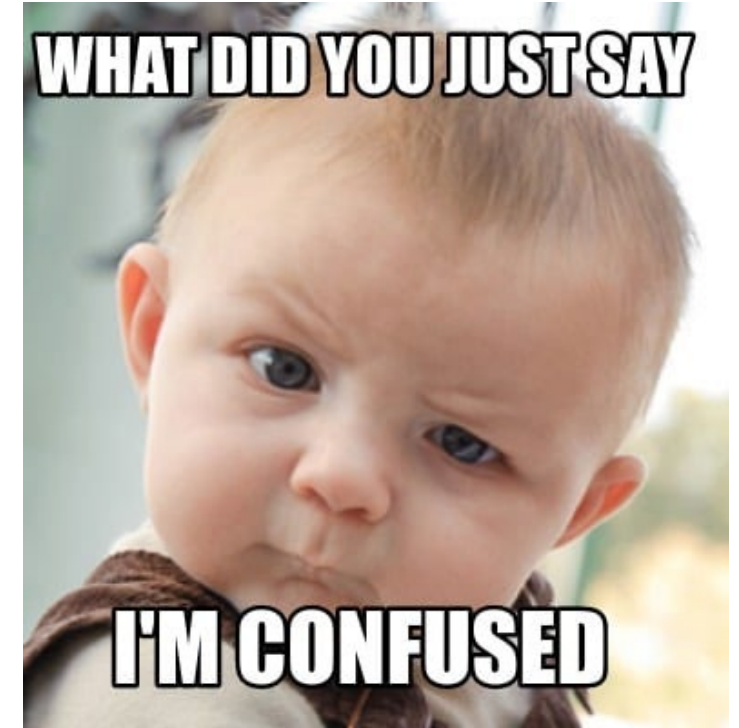
- 30 yo female with metastatic breast cancer, dx 2020 at OSH
- Oncology social worker connected with patient regarding severe depression score
 - Severe depression and anxiety impacting i/ADLs; previously saw psych at OSH
 - LMSW provided brief supportive counseling, assistance with resources and home life
 - Ongoing support and monitoring plan
- Discussed with managing oncologist and care team
 - Referral to Palliative Care, referral to Psych-Onc, referral to Primary Health to establish with HF PCP
 - Referral to Cardiology – tachycardia related to anxiety

Promis Scores	5/25/2022	5/2/2022
PROMIS Pain Interference T-Score (range: 10 - 90)	66 (moderate)	64 (moderate)
PROMIS Physical Function T-Score	38 (moderate dysfunction)	39 (moderate dysfunction)
PROMIS Depression T-Score	-	73 (severe)
PROMIS Fatigue T-Score	75 (severe)	74 (severe)

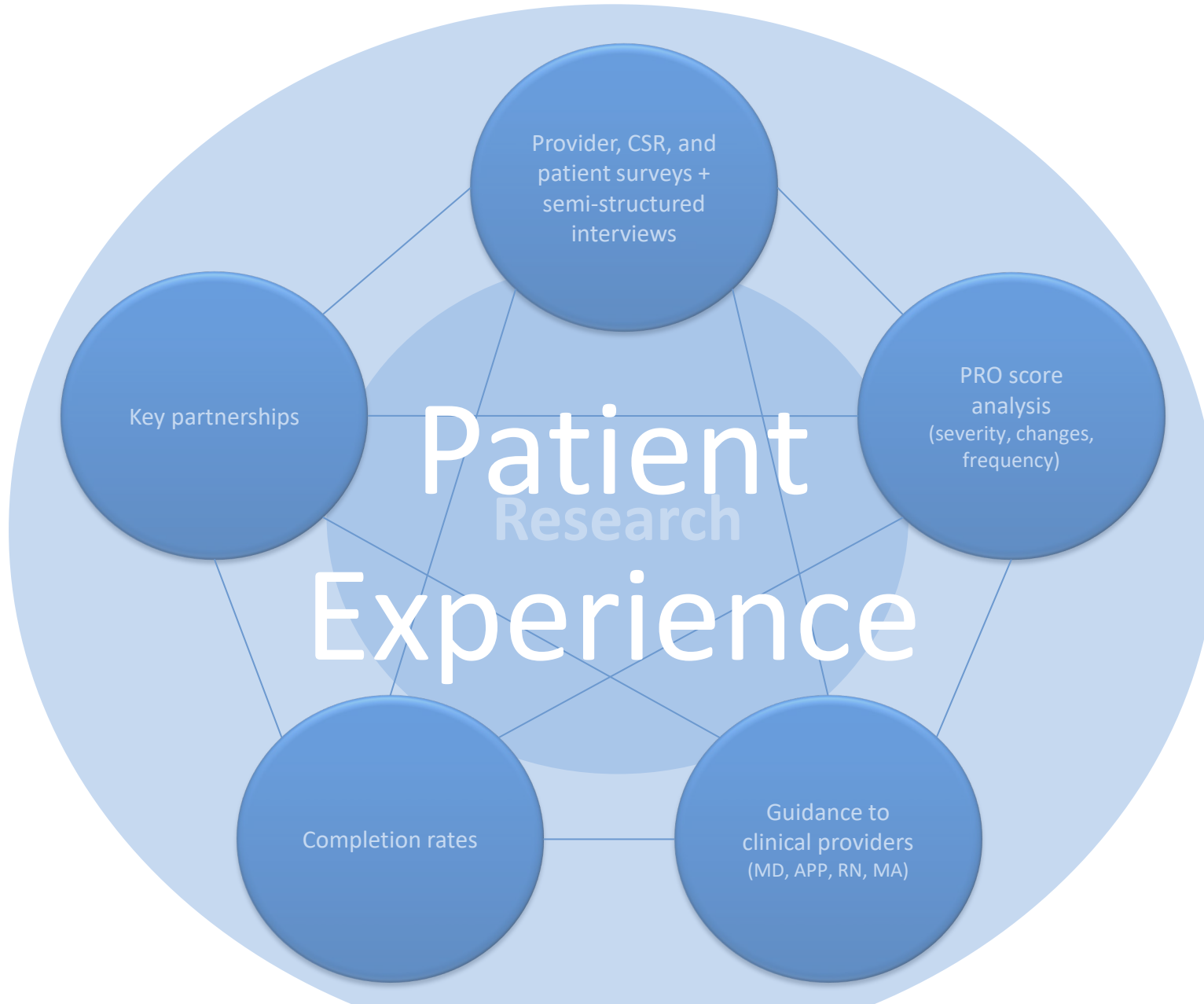


Next Steps, Next Questions...

- What did we learn from the implementation?
- What do I do with the scores?
- How do I interpret the scores?
- Who is going to act on the scores?
- How useful/additive is the program?
- What is the impact on clinic workflow?
- How can we improve upon the program?
- Can we leverage this work for research?
- Is the program able to predict survival for patients?
- Is the program able to improve overall survival for patients?

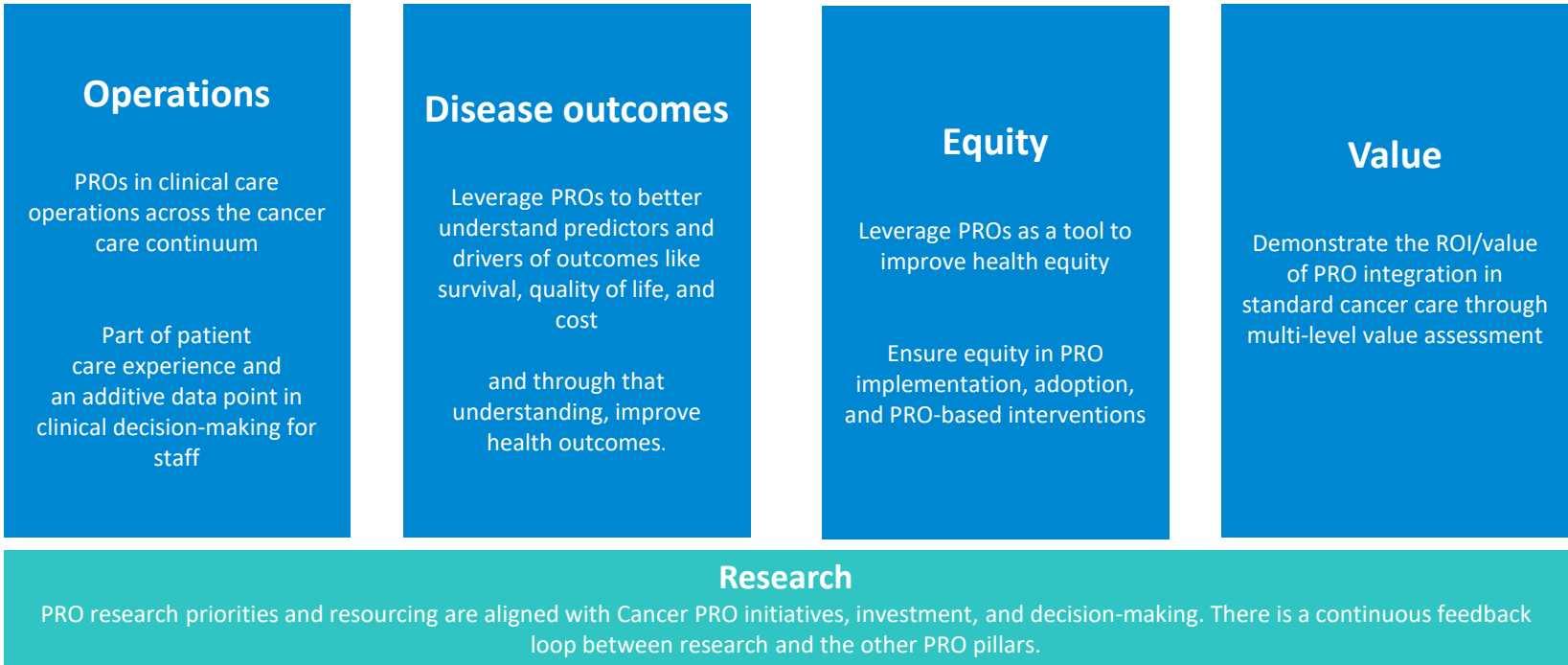


Patient Reported Quality of Life Program 2022



Patient Reported Quality of Life Program

Pillars



Foundations

Patient Experience
Data: should be accessible, usable, and additive for clinical, quality, and research questions
Analyses: the questions we are trying to answer for improvement
Partnerships: OncoStat, Palliative Medicine & AIM, Cancer Pain, Psych-Onc, Social Work, Disease Teams, Primary Care, PHS

Research and Operations



HF Cancer Preliminary Findings

Analysis performed in partnership with PHS Biostatistics Team and programming support: Laila Poisson, Kylie Springer, Carl Wilson, Samantha Tam, Eric Adjei Boakye, Md Sakibur Hasan, Mohammed Baseer, Wan-Ting Su, Smitha Jogunoori, Alla Sikorski, Peter Watson, Charlie Bloom

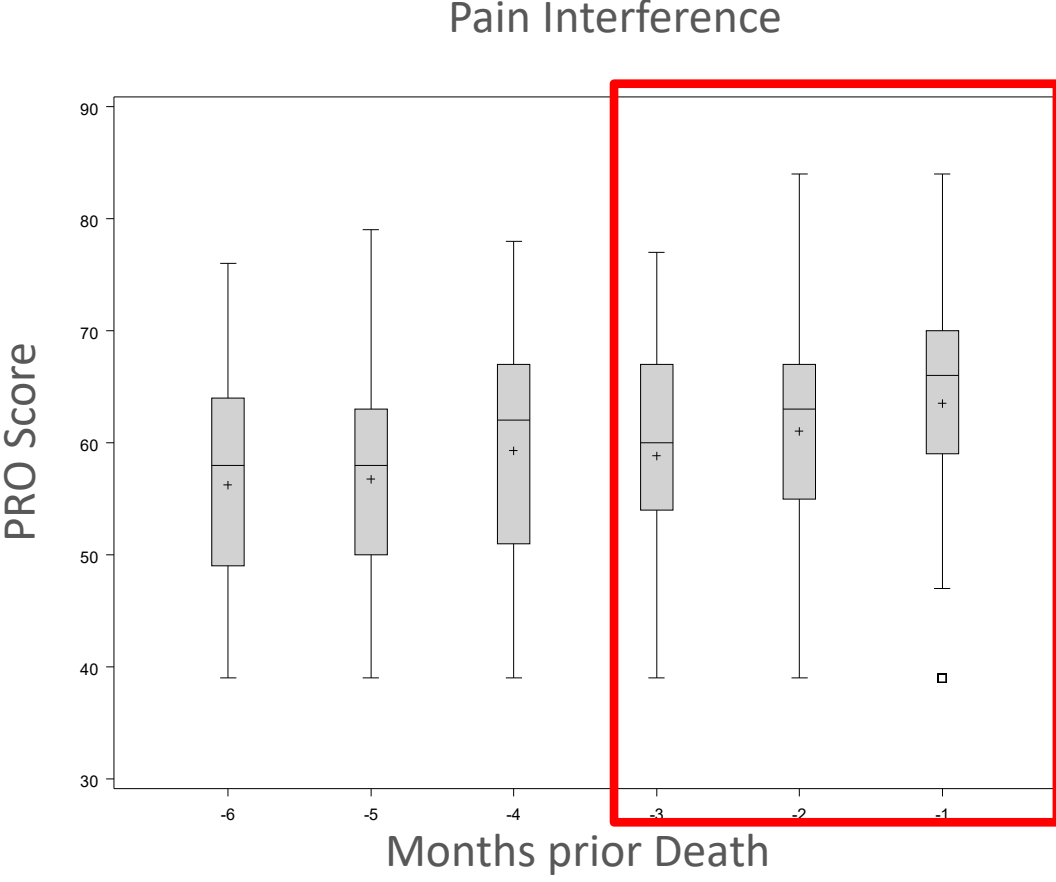
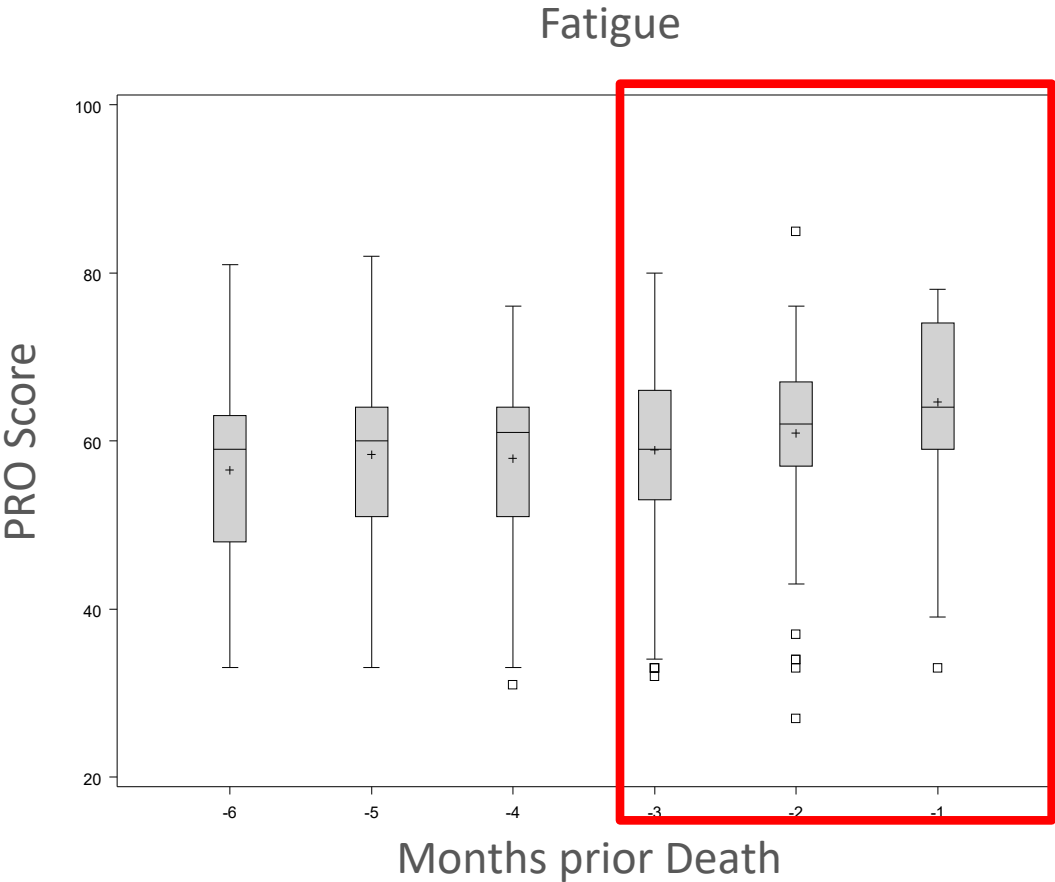


The Highlights...

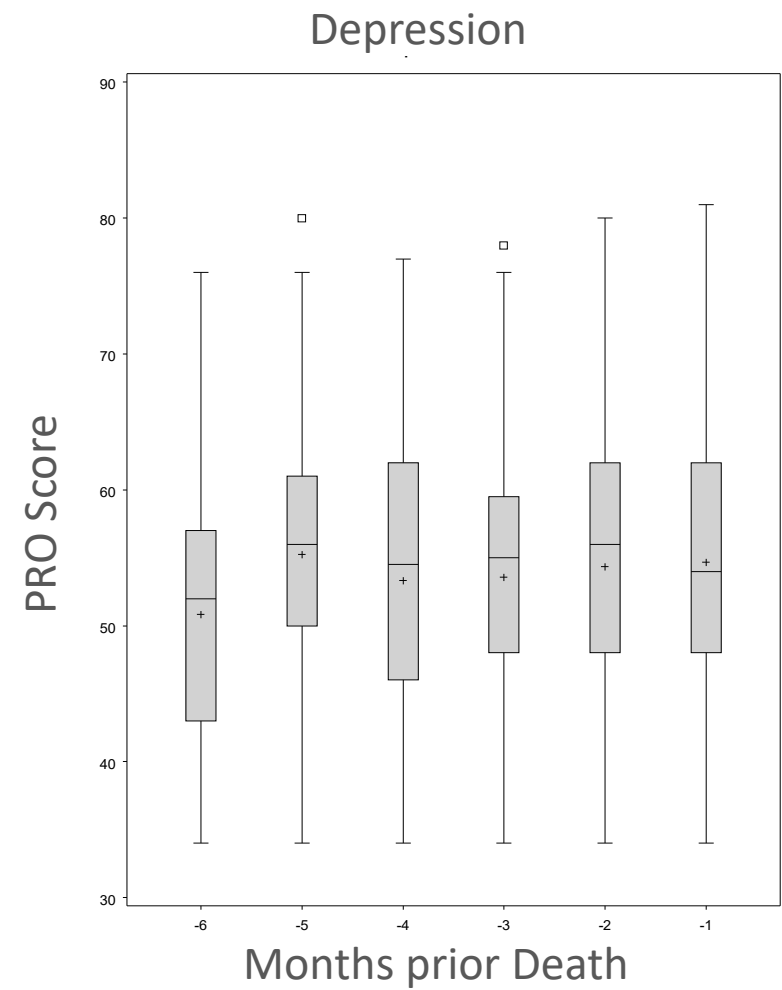
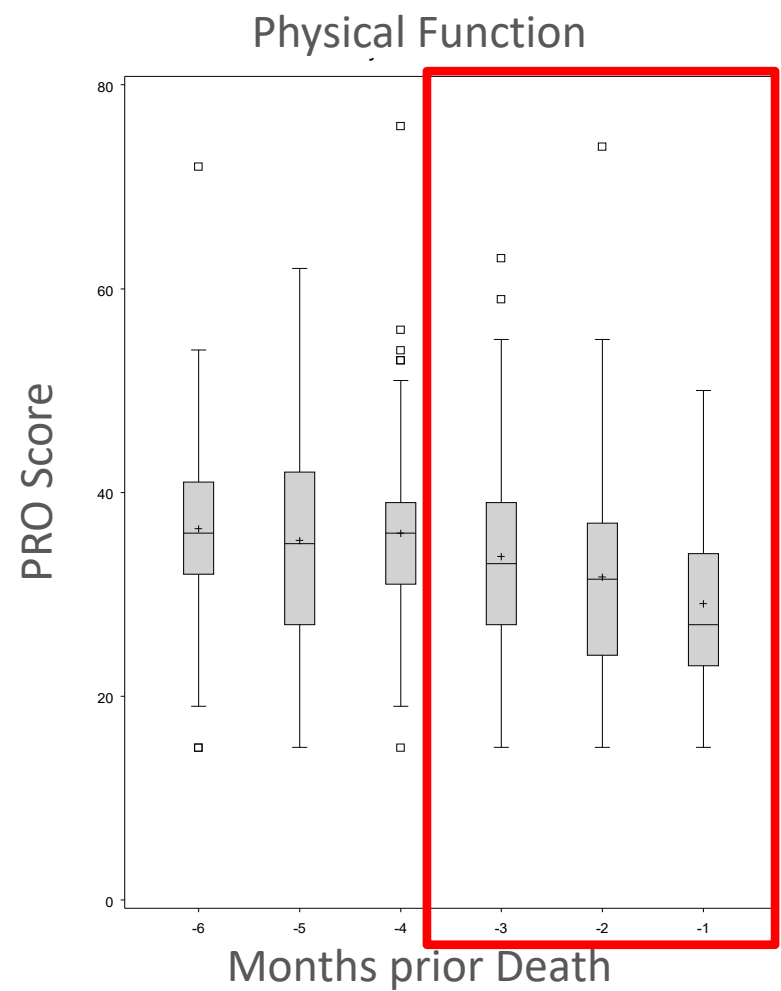
- **Analysis showed how important PRO-QOL is to patient care**
 - Patient reported quality life worsens as they approach death
 - As patients approach death, the number of domains that fall into the severe range increases
 - Patient reported quality of life may be predictive of overall survival of cancer patients
 - Patient reported quality of life is predictive of health care utilization
 - Patient reported quality of life needs to be taken in the context of all clinically available data
- **Implementation did not impact clinical workflows**
 - Physician opinions of the PRO QOL program implementation were neutral to positive
 - Patients are more likely to complete the instruments if they know clinicians are utilizing them
 - Guidance on what to do with the scores were developed and implemented
- **Research has been infused into this work from the start**
 - Several Grants, Papers and Abstracts are being generated based on this work



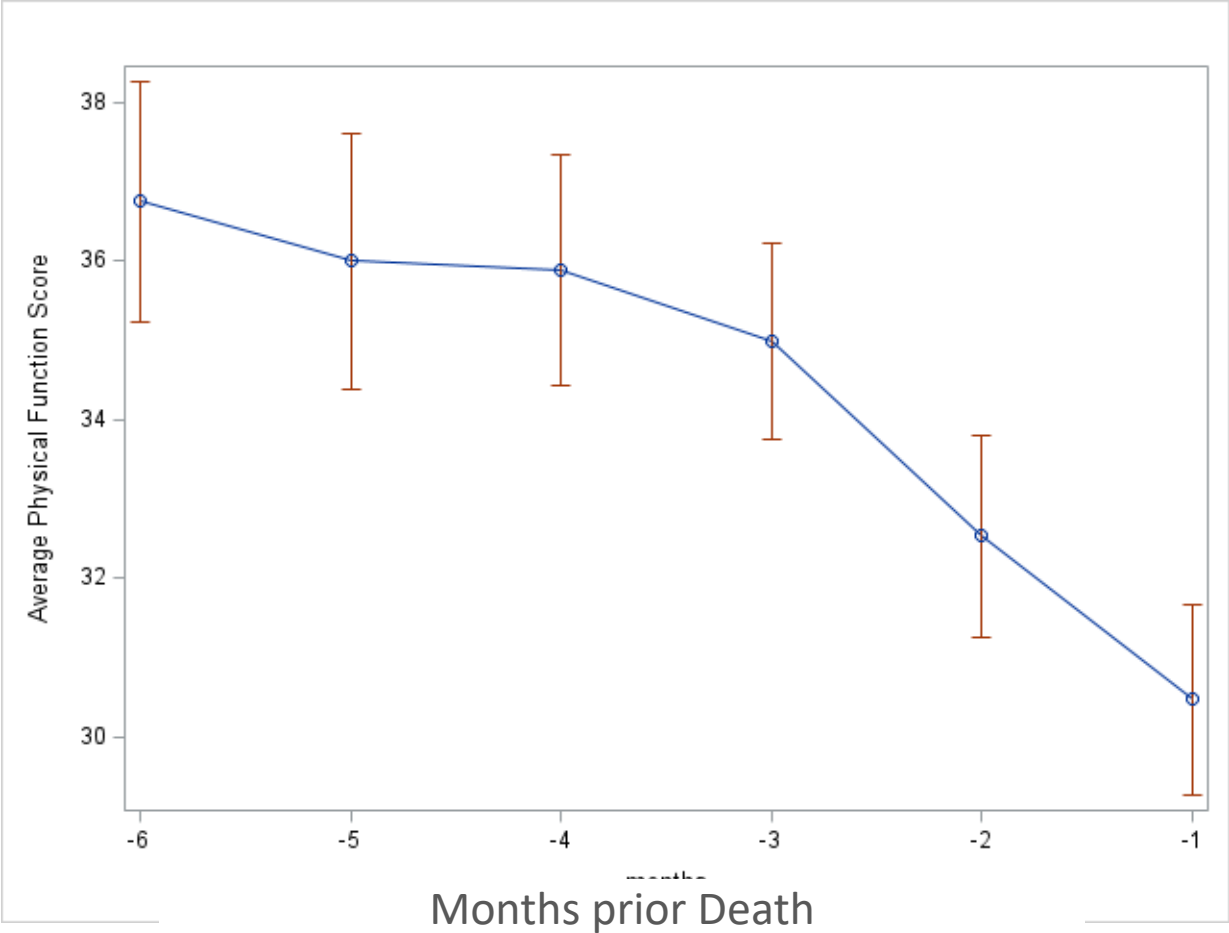
Increasing fatigue and pain interference within the last 3 months prior to death



Decreasing physical function within the last 3 months prior to death



Decreasing physical function prior to death



What about in a case-control?

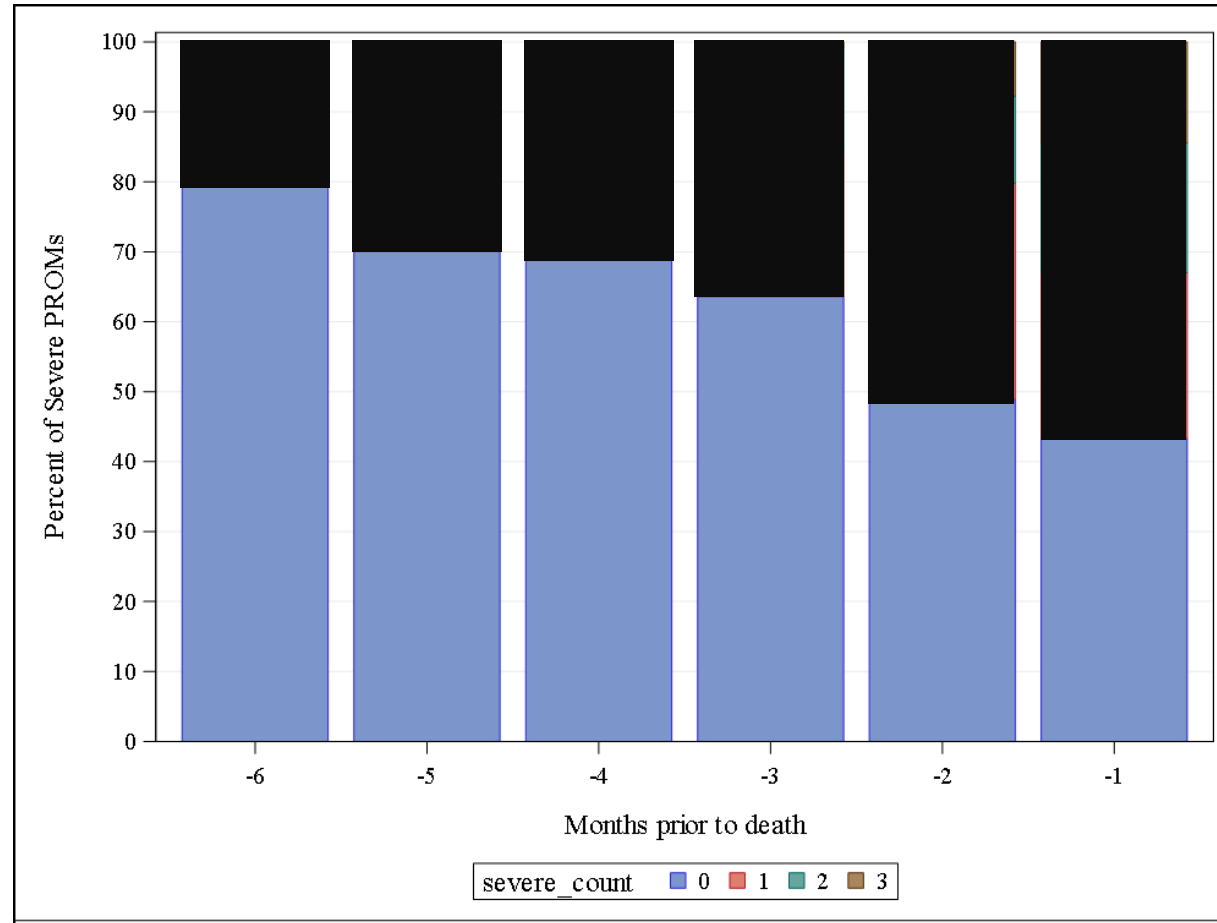
- After matching, there is a significant mean change for cases vs controls for each domain in the 6 months before death

	Mean Change Cases vs Controls	95% lower CI	95% upper CI	p-value
Fatigue (n=1487)	6.36	5.01	7.71	<.001
Physical Function (n=1509)	-8.59	-9.81	-7.38	<.001
Pain Interference (n=1569)	5.55	4.26	6.84	<.001
Depression (n=1705)	3.89	2.75	5.04	<.001

- A nested case-control study design with replacement was used.
- Cases: patients that died (N=526) within 6 months of taking at least one PROM.
- Controls: patients that were alive and being followed at the time of the case's death.
 - Matched 3:1 to cases by age (within 5 years) at the earliest PROM, sex, cancer type, and cancer stage.



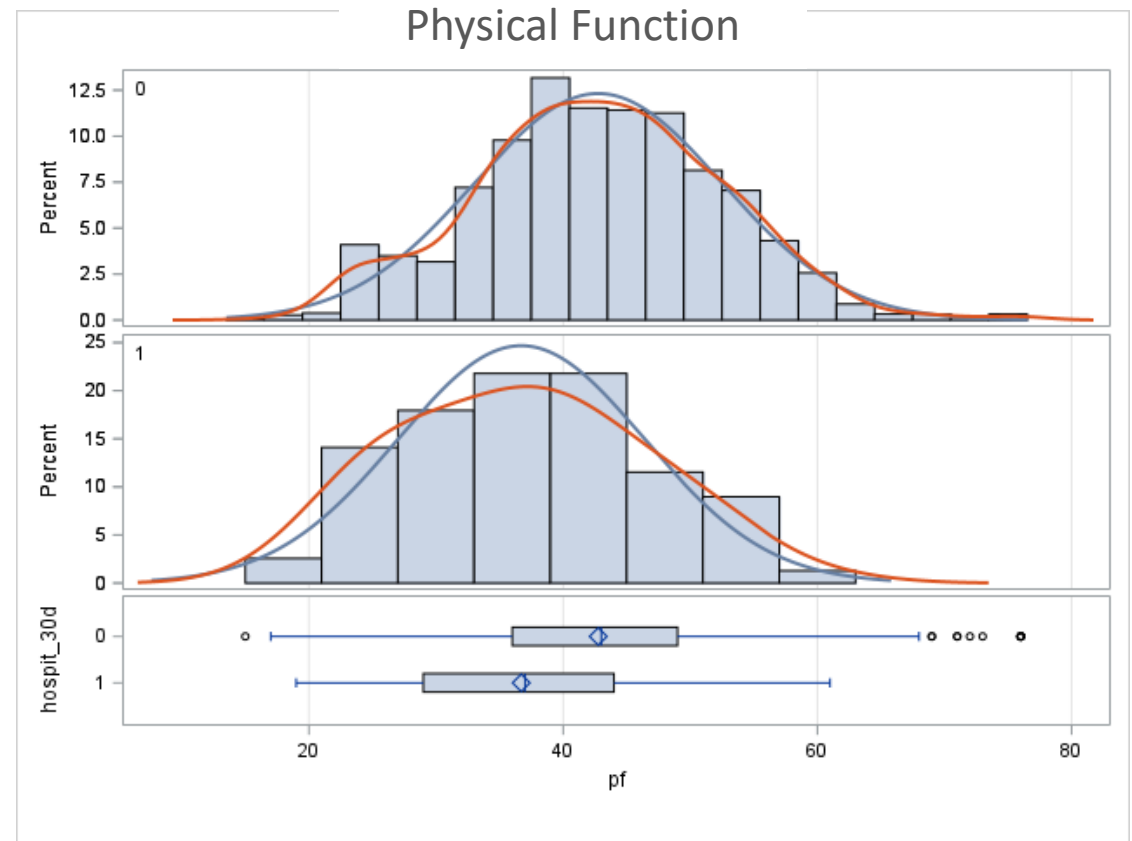
Increasing proportion of patients with severe scores within the last months prior to death



PRO QOL predicts hospital admissions

Physical function is most predictive

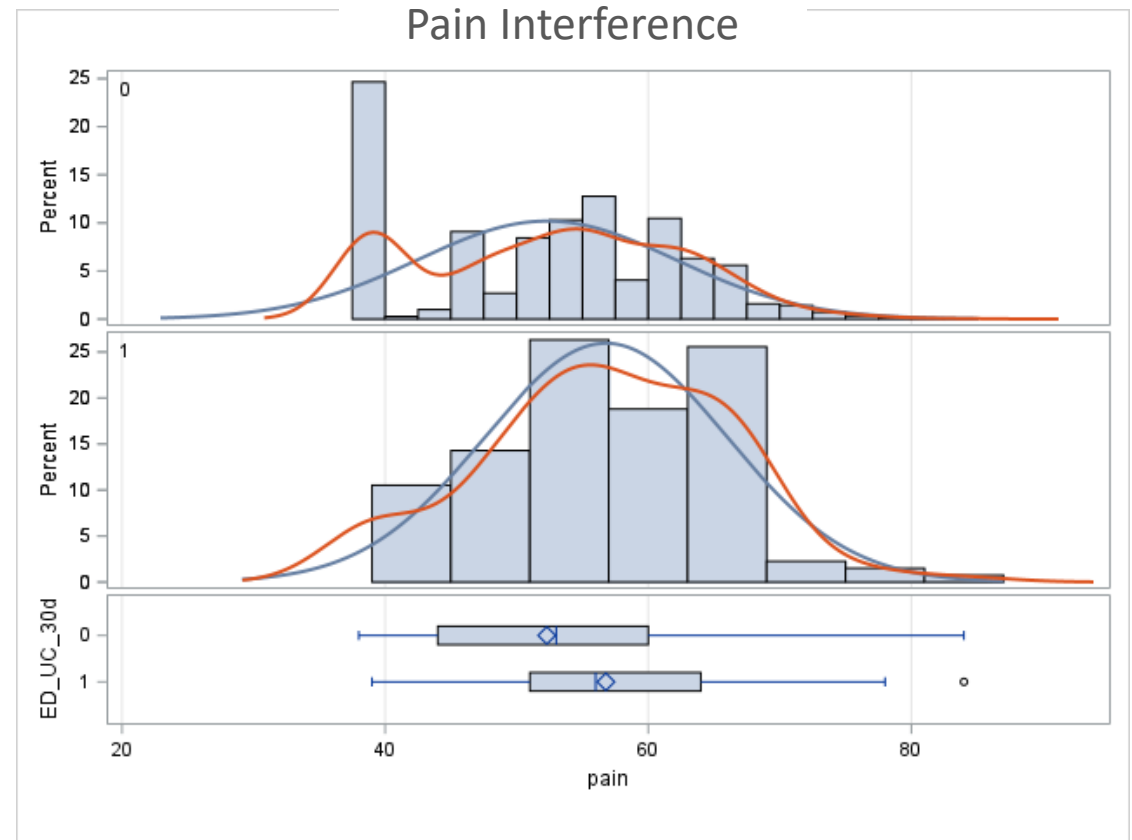
- After controlling for age, sex, and comorbidity, **pain, fatigue, and physical function** (one PRO at a time) were significant predictors of hospitalizations in the next 30 days. Depression was not.
- When all 4 PRO scores were included as predictors along with age, sex, and comorbidity, significant predictors were: younger age, male sex, greater comorbidity, and poorer physical function: OR=0.97, 95% CI (0.94, 0.99) , $p < .01$ per unit of increase in score



PRO QOL predicts ED/Urgent care

Pain interference is most predictive

- After controlling for age, sex, and comorbidity, **pain and physical function** (one PRO at a time) were significant predictors of ED/urgent care use in the next 30 days, Depression and fatigue were not.
- When all 4 PRO scores were included as predictors along with age, sex, and comorbidity, significant predictors were: younger age, male sex, greater comorbidity, and greater pain interference: OR=1.05, 95% CI (1.02, 1.09), $p < .01$ per unit of PROMIS score



PRO QOL predicts Healthcare Utilization

The unadjusted analyses of PRO measures in relation to hospitalizations and ED/urgent care visits in the subsequent 30 days:

- When considered one at a time, **pain**, **fatigue**, and **physical function** are significant predictors of both events. **Depression** is not predictive.
 - When entered as simultaneous multiple predictors, **physical function** wins over other predictors in its association with future hospitalizations.
 - For the ED/urgent care, key predictor is **pain** over the other PROs
-
- *Analysis performed with HAP claims data, which ensures most complete capture of health care utilization*



For ED/urgent care, key predictor is pain over the other PROs

PRO	ED/urgent care visit in the next 14 days			ED/urgent care visit in the next 30 days		
	OR	95% CI	p	OR	95% CI	p
Pain interference	1.06	(1.03, 1.09)	<.01	1.04	(1.01, 1.07)	<.01
Physical function	0.97	(0.94, 0.99)	.04	0.97	(0.95, 0.99)	.04
Fatigue	1.02	(0.99, 1.05)	.22		(0.99, 1.05)	.06
Depression	1.01	(0.98, 1.04)	.72	1.01	(0.99, 1.03)	.28

Table 2. The effect of per unit increase in PROs on ED/urgent care visits in the next 14 and 30 days, adjusted for age at first PRO assessment, sex, comorbidity, advanced cancer, median household income and high school education in the Census tract.

Note: Controlling for site of cancer does not change these results in an appreciable way.



Cutpoints for 30-day ED/UC visits:

Significant interaction of pain interference ≥ 60 & physical function of ≤ 45 with advanced cancer

Pain Interfer. cut-off	Advanced cancer			Non-advanced cancer		
	ROC area	OR (95% CI)	p	ROC area	OR (95% CI)	p
50	.73	2.45 (0.96, 6.50)	.06	.65	2.07 (1.15, 3.74)	.02
55	.73	2.29 (1.01, 5.21)	.048	.64	1.68 (0.97, 2.72)	.06
60	.76	3.38 (1.47, 7.31)	.003	.63	1.22 (0.72, 2.10)	.46
65	.74	2.51 (0.94, 7.72)	.07	.67	2.61 (1.40, 4.87)	.003
70	.70	0.91 (0.12, 7.02)	.93	.63	1.17 (0.33, 4.26)	.81

Physical function cut-off	Advanced cancer			Non-advanced cancer		
	ROC area	OR (95% CI)	p	ROC area	OR (95% CI)	p
50	.73	0.39 (0.12, 1.34)	.14	.64	0.62 (0.32, 1.19)	.15
45	.76	0.25 (0.08, 0.76)	.01	.63	0.90 (0.53, 1.53)	.70
40	.75	0.36 (0.15, 0.85)	.02	.63	0.77 (0.45, 1.31)	.34
35	.72	0.50 (0.19, 1.32)	.16	.64	0.53 (0.29, 0.96)	.04
30	.72	3.34 (0.39, 28.84)	.27	.62	0.59 (0.28, 1.22)	.15

Table 3. ORs for various cut-points for PRO cut-offs in relation to 30-day ED/UC visits by advanced cancer, adjusted for age at first PRO assessment, sex, comorbidity, median household income and high school education in the Census tract.

Through **HFH-MSU Pilot Grant**: analysis performed by **MSU partner – Alla Sikorskii** with **HAP** claims data

Cutpoints for 14-day ED/UC visits: Significant interaction of pain interference ≥ 60 & physical function of ≤ 45 with advanced cancer

Pain interfer. cut-off	Advanced cancer			Non-advanced cancer		
	ROC area	OR (95% CI)	p	ROC area	OR (95% CI)	p
50	.72	3.21 (1.03, 9.98)	.04	.67	2.54 (1.08, 5.99)	.03
55	.70	2.28 (0.95, 5.52)	.06	.68	2.56 (1.24, 5.29)	.01
60	.76	4.53 (1.88, 10.89)	<.01	.68	2.16 (1.09, 4.28)	.03
65	.70	2.77 (1.00, 7.68)	.05	.69	4.13 (1.95, 8.73)	<.01
70	.67	2.20 (0.37, 13.18)	.39	.63	1.44 (0.31, 6.68)	.64

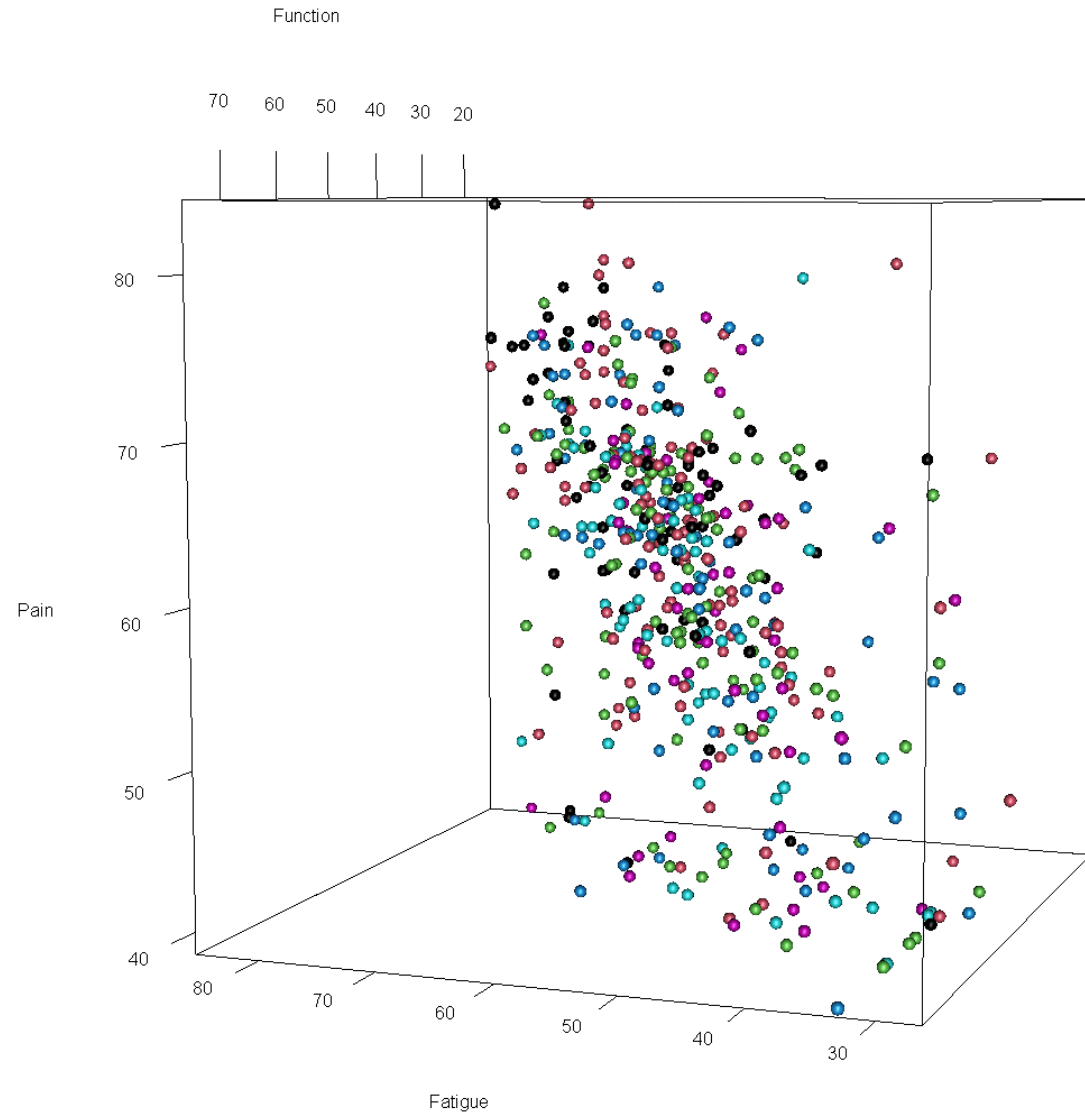
Physical function cut-off	Advanced cancer			Non-advanced cancer		
	ROC area	OR (95% CI)	p	ROC area	OR (95% CI)	p
50	.70	0.46 (0.13, 1.58)	.21	.63	0.78 (0.34, 1.82)	.57
45	.72	0.34 (0.11, 1.02)	.05	.63	0.77 (0.37, 1.59)	.48
40	.73	0.30 (0.12, 0.76)	.01	.64	0.53 (0.26, 1.08)	.08
35	.68	0.71 (0.25, 2.03)	.52	.67	0.36 (0.17, 0.77)	<.01
30	Did not converge			.62	0.41 (0.17, 1.00)	.05

Table 4. ORs for various cut-points for PRO cut-offs in relation to 14-day ED/UC visits by advanced cancer, adjusted for age at first PRO assessment, sex, comorbidity, median household income and high school education in the Census tract.

Through **HFH-MSU Pilot Grant**: analysis performed by **MSU partner – Alla Sikorskii** with **HAP** claims data

Which domains were most commonly seen together?

Pain interference, fatigue and physical function are correlated



Summary

- Patient reported quality life worsens as they approach death
- As patients approach death, the number of domains that fall into the severe range increases
- Patient reported quality of life may be predictive of overall survival of cancer patients
- Patient reported quality of life is predictive of health care utilization
- Patient reported quality of life needs to be taken in the context of all clinically available data



Physician/Clinical Staff Perspectives

Assessment of Implementation

- Assessments Completed
 - Surveys to physicians and APPs
 - Surveys to CSRs
- Assessments Underway
 - Surveys to patients (responders and non-responders)
 - Interviews
 - Physicians, CSRs and patients (responders and non-responders)

Through *HFH-MSU Pilot Grant*: *MSU partner – Kelly Hirko*

Manuscript in process. Will be used as part of PRO Health Equity R01 Submission

How useful/additive is the program?

What is the impact on clinic workflow?

Provider opinions of the PRO implementation were neutral to positive

- The majority of providers review PROs when available
- The majority of providers find PROs beneficial & influence their clinical care
- Physicians seek more consistent availability of scores
- Physicians would like more guidance on what to do with the scores



How useful/additive is the program?

What is the impact on clinic workflow?

- The majority of CSRs found the tablet training and number of tablets to be adequate
- The majority of CSRs experience patients declining to complete PROMs at check-in
 - Patients don't know if the instruments are being integrated into their care
 - → Increase communication and integration in clinic visits
 - → Provider education and utilization in clinics
 - Patients don't feel well at check in
 - → Encourage completion via MyChart through Echeck-in (upstream)
 - → Future workflow for MAs to facilitate completion if not done (downstream)



PRO/MA Rooming Process – BHCP 2023

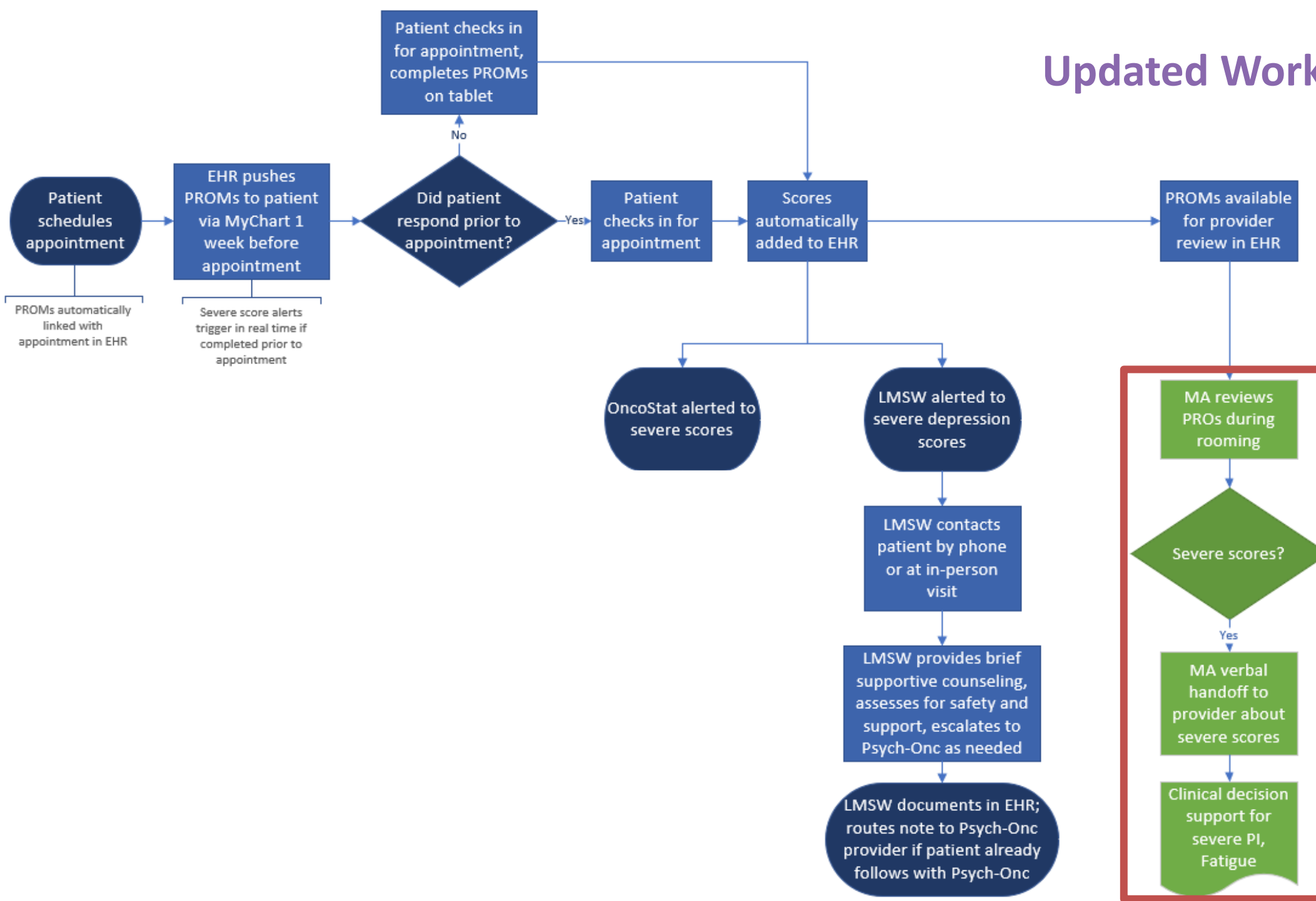
HENRY FORD HEALTH®

Integrate PROs into MA rooming protocol

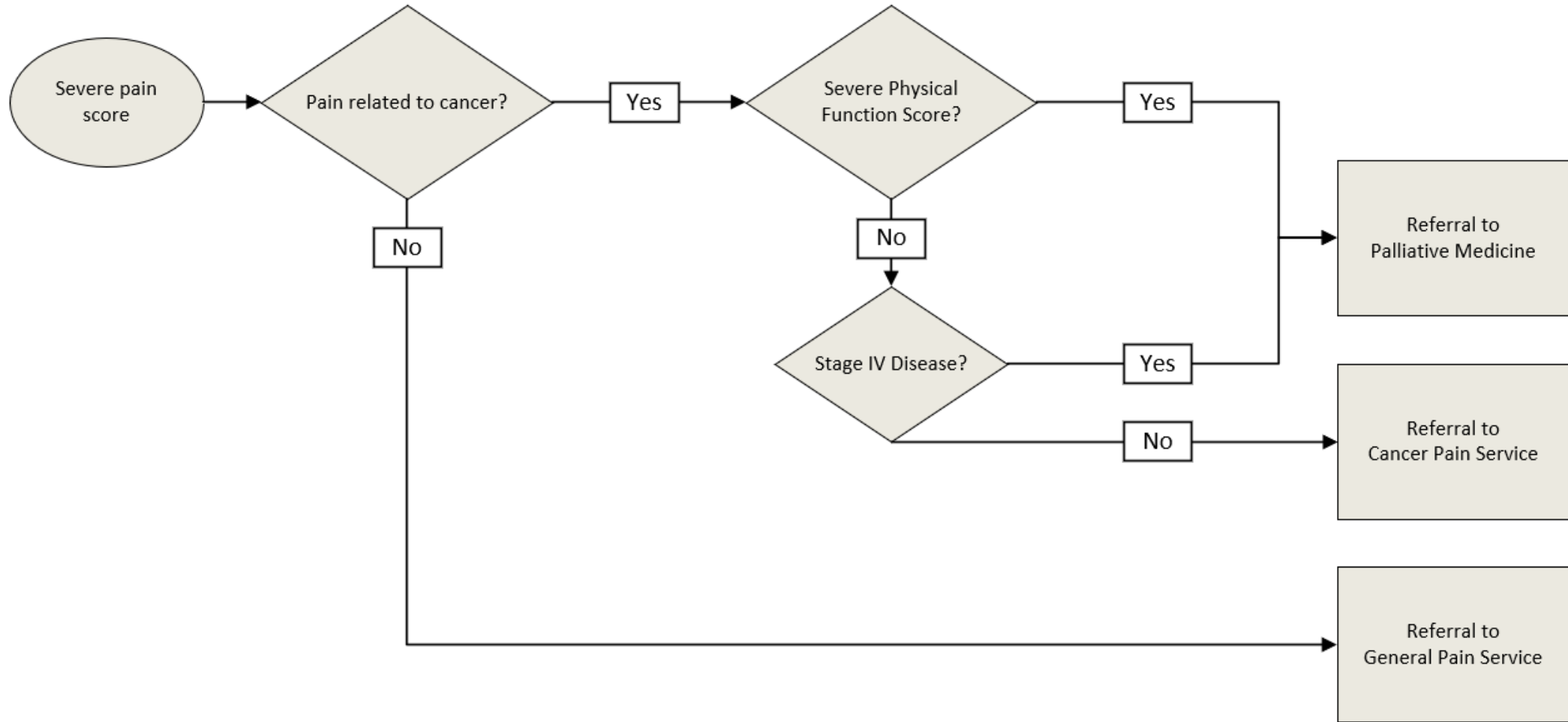
1. Patients can complete PROMs on MyChart or iPad at appointment check-in
 - Fatigue, pain, physical function: q2w
 - Depression: q1m
2. MA will check for scores in Epic & will alert provider to any severe scores, similar to notification for abnormal vital signs
 - MAs will NOT be helping patients to complete PROs in the room at this time; completion will remain via MyChart or on the iPad at appointment check-in



Updated Workflow

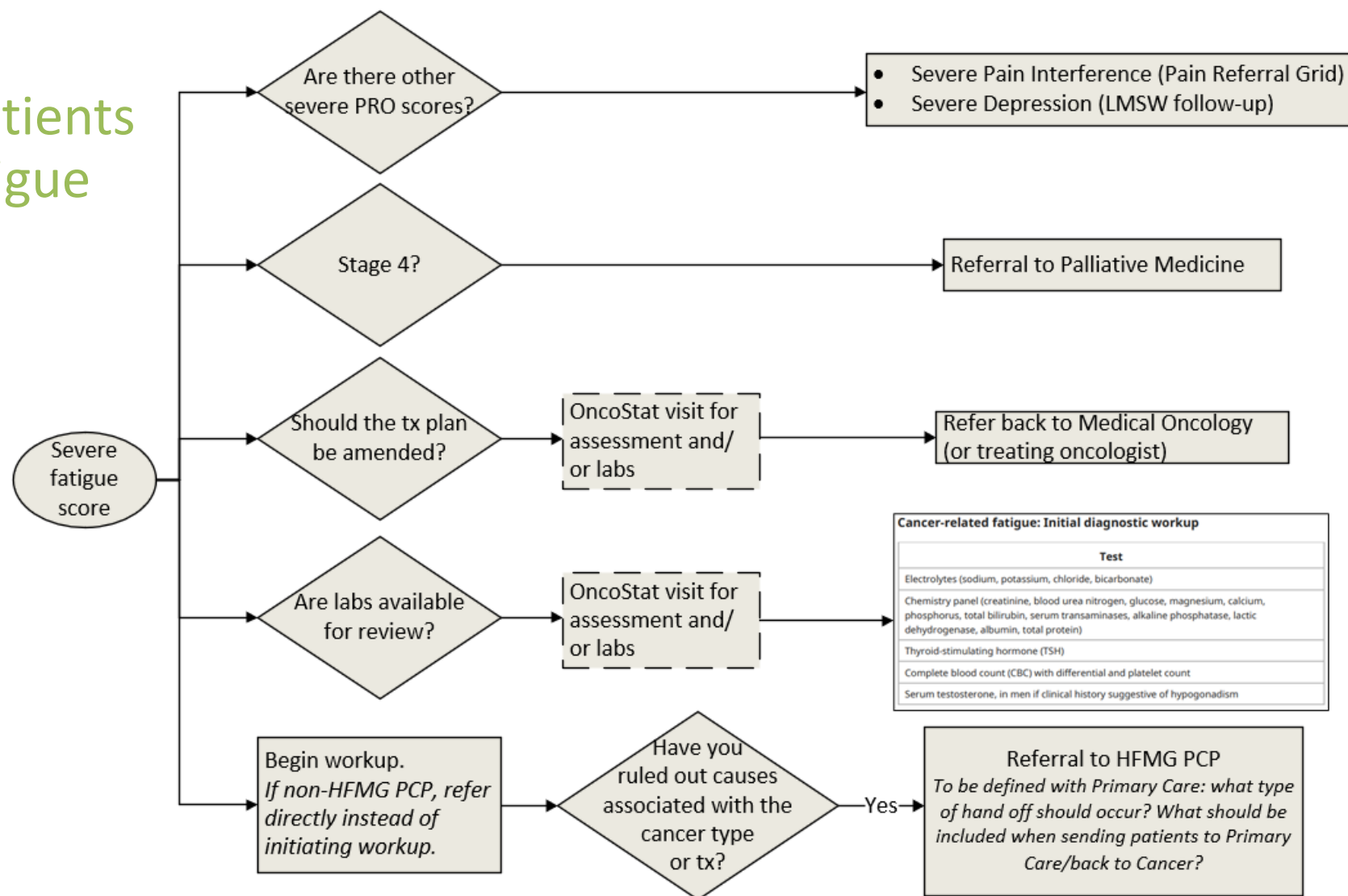


Guidance for Patients with Severe Pain Interference Scores



Cancer Pain: part of Anesthesiology Pain Service including Pain Clinics in the satellites

Guidance for Patients with Severe Fatigue



Cancer-related fatigue: Initial diagnostic workup

Test
Electrolytes (sodium, potassium, chloride, bicarbonate)
Chemistry panel (creatinine, blood urea nitrogen, glucose, magnesium, calcium, phosphorus, total bilirubin, serum transaminases, alkaline phosphatase, lactic dehydrogenase, albumin, total protein)
Thyroid-stimulating hormone (TSH)
Complete blood count (CBC) with differential and platelet count
Serum testosterone, in men if clinical history suggestive of hypogonadism

Reproduced with permission from: Escalante CP, Manzullo MD, Valdrez R. A cancer-related fatigue clinic: Opportunities and challenges. *J Nat Canc Inst* 2003; 1:333. Copyright ©2003 Jones and Bartlett Publishers.

Graphic 64018 Version 6.0

Potentially treatable causes of cancer-related fatigue and examples of the diagnostic evaluation

Treatable contributing factor	Examples of possible diagnostic evaluation*
Cardiac dysfunction (eg, arrhythmia, hypertension, coronary artery disease, heart failure)	Consider echocardiogram, exercise test for cardiopulmonary reserve
Endocrine dysfunction (eg, diabetes, hypothyroidism, hypogonadism, adrenal insufficiency)	Consider measuring HgbA1C, TSH, glucose, and testosterone, conduct dexamethasone suppression test
Pulmonary dysfunction	Consider chest x-ray, six-minute walk test, pulmonary function tests, oxygen saturation
Renal dysfunction	Consider kidney and electrolyte chemistries
Anemia	Consider CBC
Arthritis	Consider erythrocyte sedimentation rate (ESR), serologies
Neuromuscular complications (neuromuscular degenerative disease, neuropathy)	Consider grip strength test, neuropathy sensory testing, electromyography
Sleep disturbances (eg, insomnia, sleep apnea, vasomotor symptoms, restless leg syndrome)	Consider assessing sleep with standardized questionnaire, possible sleep study
Pain	Evaluate with standardized assessment tool
Emotional distress (eg, anxiety, depression)	Evaluate with standardized assessment tool or diagnostic interview

NOTE: This list is not meant to be exhaustive.

CBC: complete blood cell count; HgbA1C: hemoglobin A1C; TSH: thyroid-stimulating hormone.
* Should be undertaken only when clinically appropriate.

From: Bower JE, et al: *J Clin Oncol* 2014. DOI: 10.1200/JCO.2013.53.4495. Reprinted with permission. Copyright © 2014 American Society of Clinical Oncology. All rights reserved.

Graphic 94933 Version 1.0

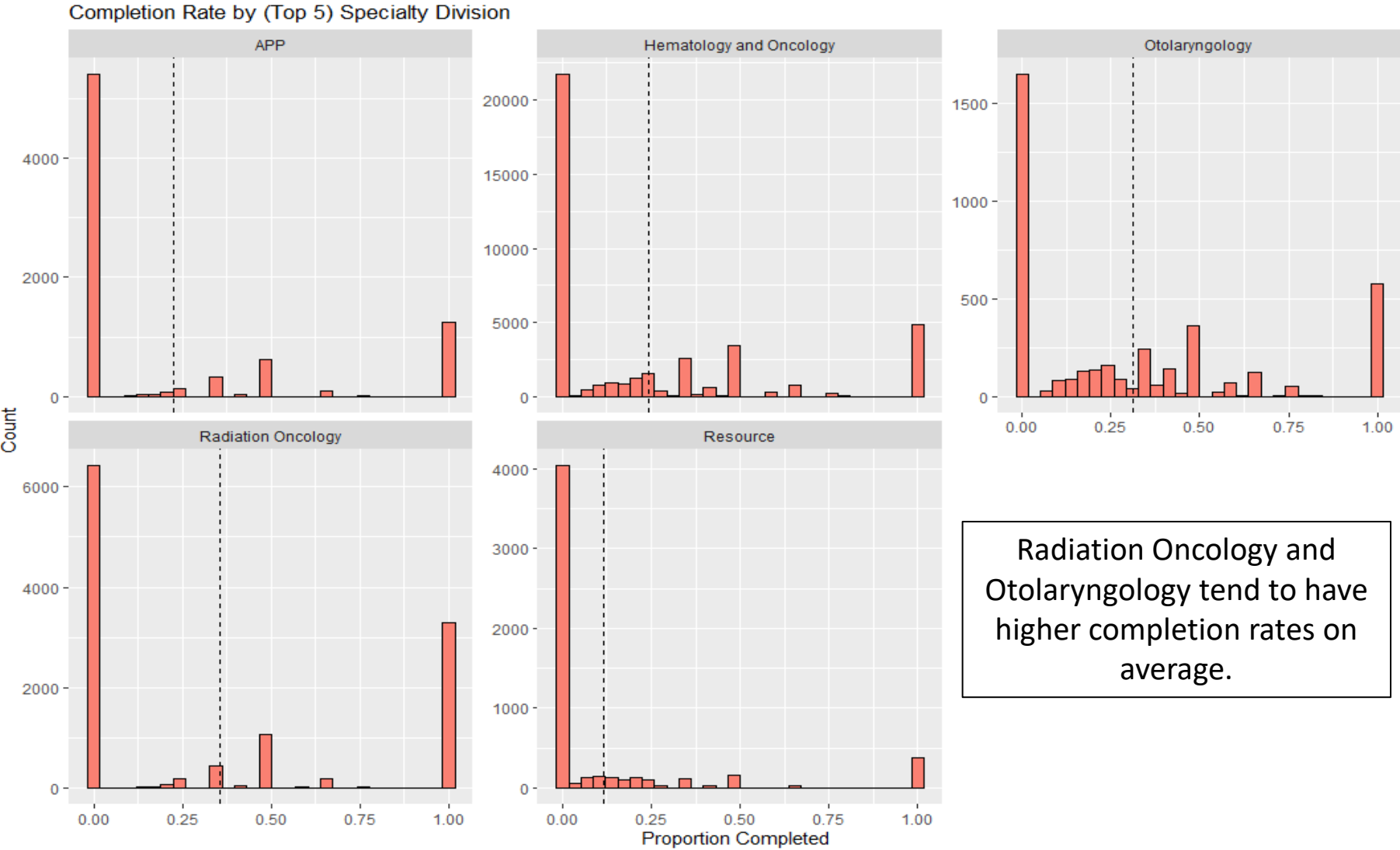
Who is completing PROs?

Defining “completing”

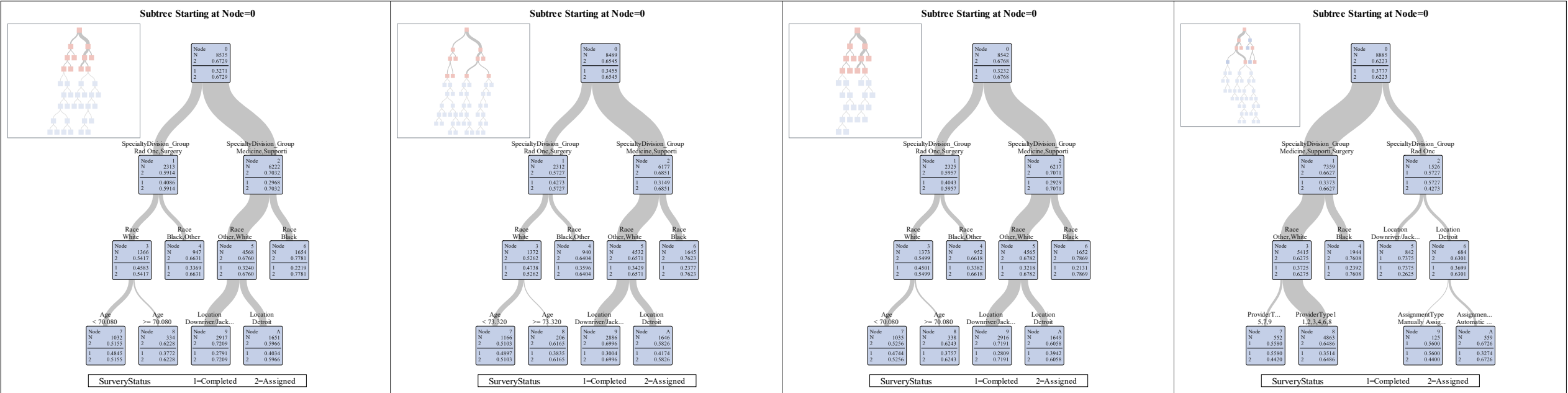
$$\text{Completion rate} = \frac{\text{number of completed PROs}}{\text{number of offered PROs}}$$

Completion Rate by Specialty Divisions

(top 5 most Frequent)



Specialty Division, Race, and Location are predictors of PROM Completion



PROMIS PF

Variable Importance:
PROMIS PF
Variable
SpecialtyDivision_Group
Race
Location
Age

PROMIS PI

Variable Importance:
PROMIS PI
Variable
SpecialtyDivision_Group
Race
Location
Age

PROMIS F

Variable Importance:
PROMIS F
Variable
Race
SpecialtyDivision_Group
Location
Age

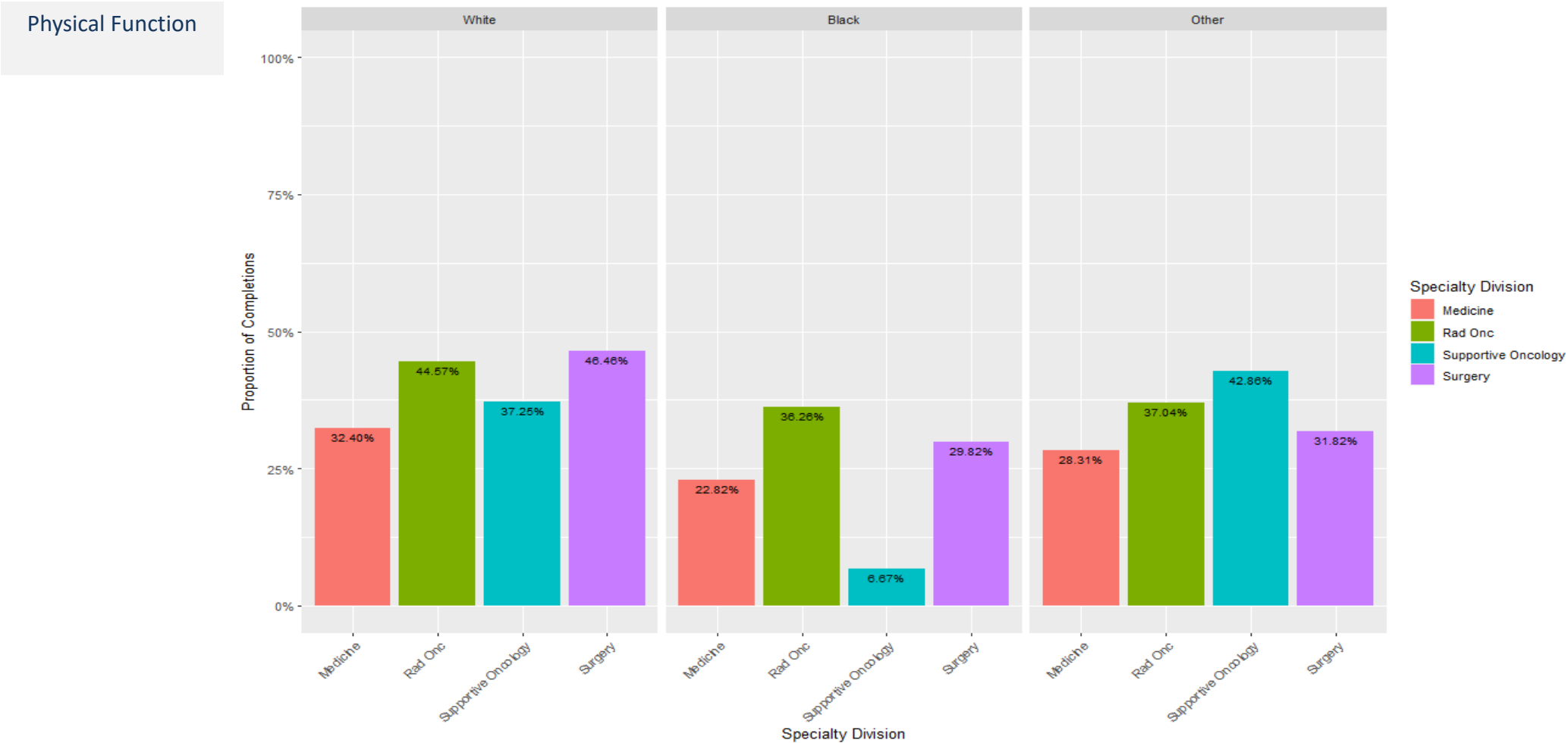
PROMIS D

Variable Importance:
PROMIS D
Variable
Location
SpecialtyDivision_Group
Race
ProviderType
AssignmentType

* Appeared in model and top 3 in variable importance table
* Appeared in model

A Closer Look at Completion for Specialty Division & Race

Percentage of Completion by Race and Specialty Division



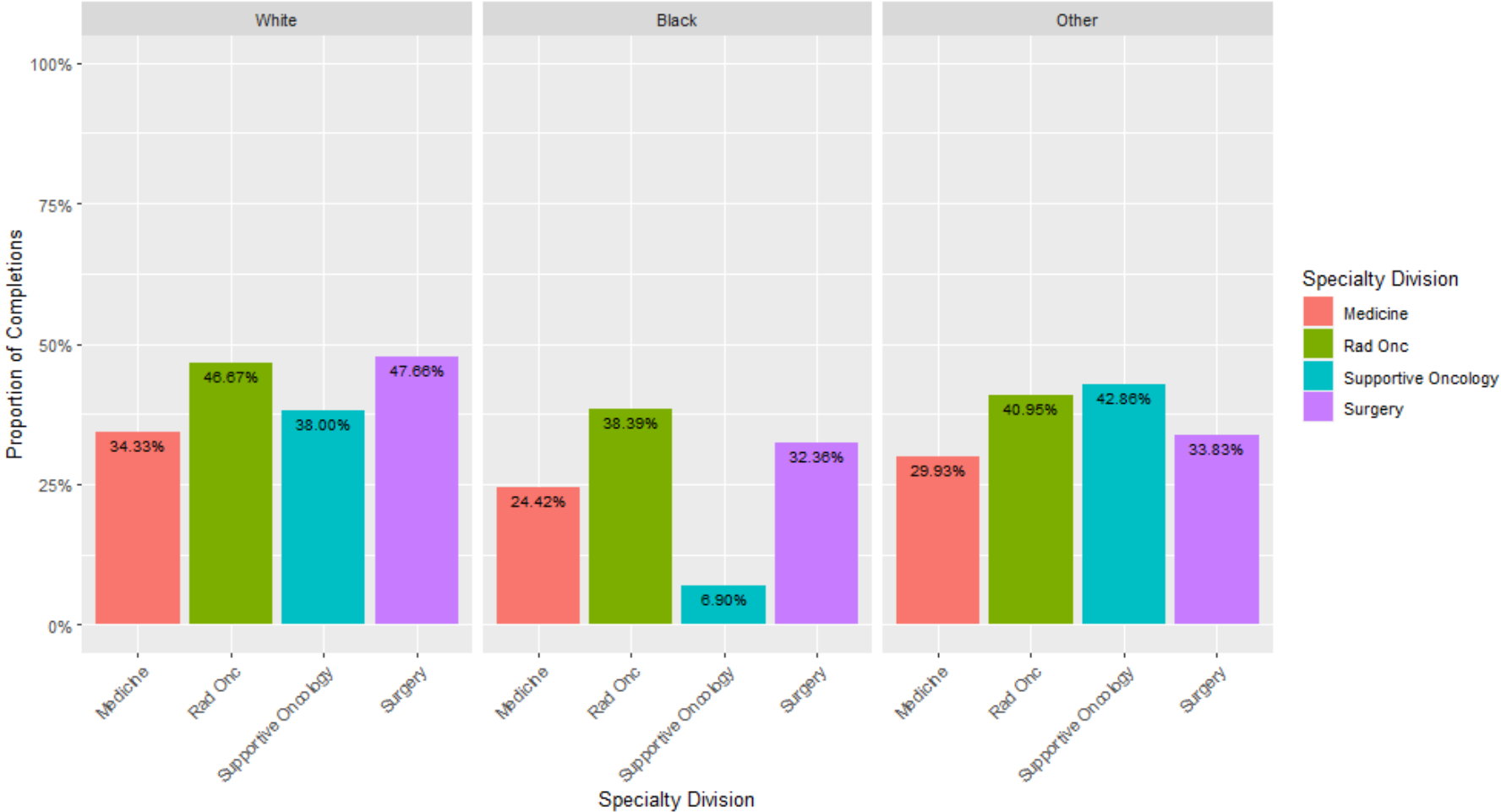
Survey Status	Specialty Division	Race		
		White	Black	Other
Completed	Medicine	32.40%	22.82%	28.31%
	Rad Onc	44.57%	36.26%	37.04%
	Supportive Oncology	37.25%	6.67%	42.86%
	Surgery	46.46%	29.82%	31.82%

Through *HFH-MSU Pilot Grant*:
MSU partner – Kelly Hirko

A Closer Look at Completion for Specialty Division & Race

Percentage of Completion by Race and Specialty Division

Pain Interference

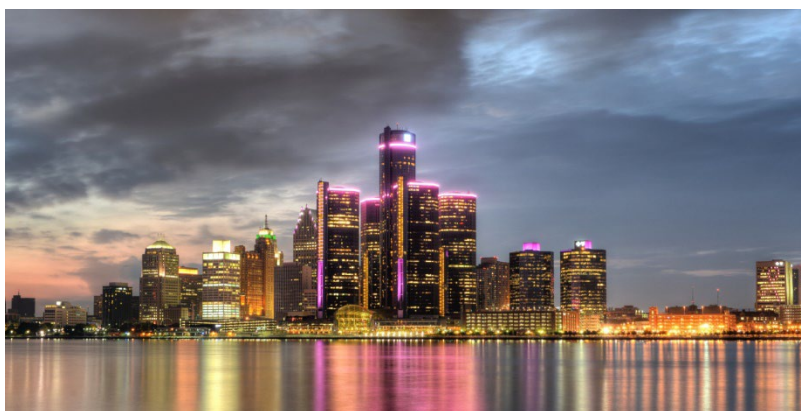


Survey Status	Specialty Division	Race		
		White	Black	Other
Completed	Medicine	34.33%	24.42%	29.93%
	Rad Onc	46.67%	38.39%	40.95%
	Supportive Oncology	38.00%	6.90%	42.86%
	Surgery	47.66%	32.36%	33.83%

Through *HFH-MSU Pilot Grant*:
MSU partner – Kelly Hirko



Thank you!



Questions?





Patient Reported Outcomes (PROs)

The PROs Team



Chris Friese, PhD, RN
Director,
Patient-Reported
Outcomes



Shayna Weiner, MPH
Project Manager



Ashley Bowen, MS, RD
Project Manager



Robin Voisine
MSW Intern

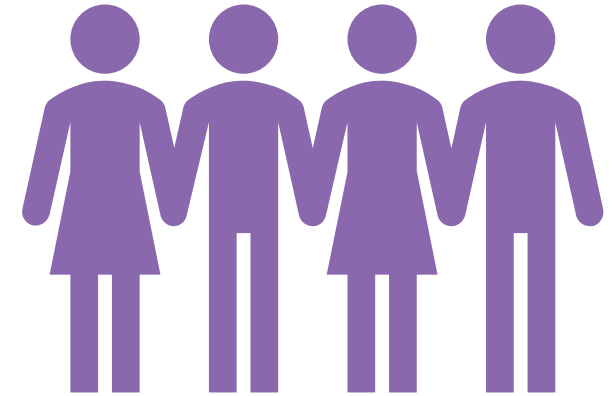
Why are we collecting PROs?

- Shown to increase survival for oncology patients
- Helps focus clinical interventions
- Prioritizes MOQC improvement efforts
- Centers on patient & family needs
- Collecting PROs will be part of MOQC Certification



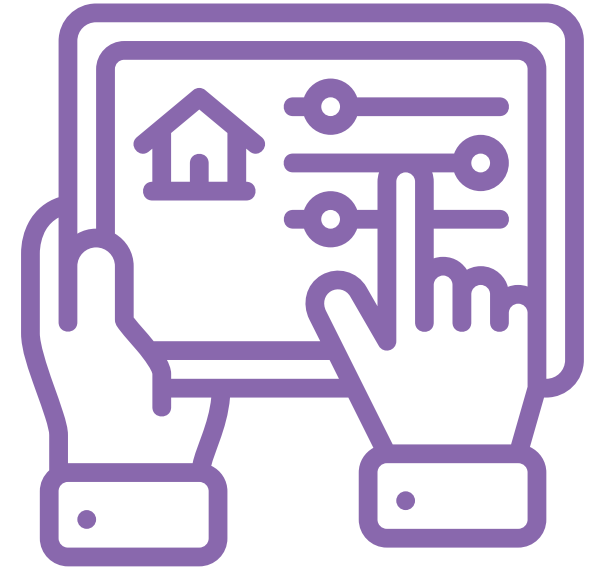
Who are we collecting PROs from?

- Adults w/ invasive cancer receiving anti-cancer therapy
- Includes IV, SC, Oral, and Maintenance therapy
- ***Very inclusive.*** When in doubt, offer to patient!



What information are we collecting?

- Survey asks about symptoms, social needs, demographics
- Patient can opt-in to provide identification to link with clinical data in MOQCLink
- **Results are not seen by care team in real time**



A reminder that your results are not shared with your care team. Please discuss your experience with your nurse or doctor.

As people go through treatment for their cancer, they sometimes experience different symptoms and side effects. For each question, please select the one answer that best describes your experiences over the last seven days.

1 In the last 7 days, how **often** did you have **NAUSEA**?

☐ Never

☐ Rarely

☐ Occasionally

☐ Frequently

☐ Almost constantly

3 In the last 7 days, how **often** did you have **VOMITING**?

☐ Never

☐ Rarely

☐ Occasionally

☐ Frequently

☐ Almost constantly

5 In the last 7 days, what was the **severity** of your **CONSTIPATION** at its **WORST**?

☐ None

☐ Mild

☐ Moderate

☐ Severe

☐ Very severe

6 In the last 7 days, how **often** did you have **LOOSE or WATERY STOOLS (DIARRHEA)**?

☐ Never

☐ Rarely

☐ Occasionally

☐ Frequently

☐ Almost constantly

7 In the last 7 days, what was the **severity** of your **NUMBNESS or TINGLING in your HANDS/FEET** at its **WORST**?

☐ None

☐ Mild

☐ Moderate

☐ Severe

☐ Very severe

9 In the last 7 days, how **often** did you feel **ANXIETY**?

☐ Never

☐ Rarely

☐ Occasionally

☐ Frequently

☐ Almost constantly

11 In the last 7 days, how **often** did you have **SAD OR UNHAPPY FEELINGS**?

☐ Never

☐ Rarely

☐ Occasionally

☐ Frequently

☐ Almost constantly

Sometimes, patients have other concerns during their cancer treatment. We would like to know more about this so we can offer better services to patients in the future.

	Yes	No
In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?	<input type="radio"/> Yes	<input type="radio"/> No
In the last 12 months, has the electric, gas, oil, or water company threatened to shut off your services in your home?	<input type="radio"/> Yes	<input type="radio"/> No
Are you worried that in the next 2 months, you may not have stable housing ?	<input type="radio"/> Yes	<input type="radio"/> No
Do problems getting child care make it difficult for you to work or study ?	<input type="radio"/> Yes	<input type="radio"/> No
In the last 12 months, have you needed to see a doctor, but could not because of cost ?	<input type="radio"/> Yes	<input type="radio"/> No
In the last 12 months, have you ever had to go without health care because you didn't have a way to get there ?	<input type="radio"/> Yes	<input type="radio"/> No
Do you ever need help reading handouts from your doctor's office or hospital ?	<input type="radio"/> Yes	<input type="radio"/> No
Do you often feel that you lack companionship ?	<input type="radio"/> Yes	<input type="radio"/> No
Are any of your needs urgent?	<input type="radio"/> Yes	<input type="radio"/> No
If you checked YES to any boxes above, would you like help with any of these needs?	<input type="radio"/> Yes	<input type="radio"/> No

We do not share your results with your cancer care team. If you need help with any of the things listed above, please speak to someone in the office today.

How are we collecting PROs?

- Data collection for 2 weeks (10 clinic days)
- MOQC-provided tablets for PRO collection, paper backup
 - All tablets have both a data plan and Wi-Fi capabilities
- Brief script provided to explain the project to patients



When are we collecting PROs?

- 3 Pilot Sites Summer 2023
 - Munson Healthcare Cowell Family Cancer Center
 - Sparrow Herbert-Herman Cancer Center
 - Hematology Oncology Consultants
- 10 Additional Sites Fall/Winter 2023
 - Oncology Hematology Associates of Saginaw Valley
 - MyMichigan Health
 - KCI at McLaren Bay Region
 - ...so far!
- Remaining MOQC sites Winter/Spring 2024



Onboarding Process Overview

- Informational meeting
- Dates reviewed and confirmed
- Virtual training set for clinic/infusion staff
- MOQC team available for support throughout



Thank you to our task force members!

- Megan Beaudrie
- Tracey Cargill-Smith
- Diane Drago
- Jacklyn Griffin
- Mike Harrison
- Amanda Itliong
- Pat Keigher
- Kathy LaRaia
- Cindy Michelin
- Lindsey Ranstadler
- Jerome Seid
- Dawn Severson
- Patrice Tims

Contact Us:



- Shayna Weiner: shaynaw@med.umich.edu
- Ashley Bowen: asbowen@med.umich.edu
- Robin Voisine: rvoisine@med.umich.edu
- Chris Friese: cfriese@umich.edu

Contact us to set up your dates for collection!

**Please check out the PROs test site and tablets at the
MOQC resources table!**

Break



Palliative Care Access & Referral Patterns: A Tale of Two Surveys

Andrew Russell, MD/MPH

Integrated Fellow in Geriatric & Palliative
Medicine

University of Michigan

June 16, 2023



Objectives

1. Describe the current landscape of access to clinic-based palliative care based on survey results
2. Describe how oncology practices in Michigan utilize referrals to palliative care clinics

2 separate surveys

Survey	Study sample
#1: Clinic-based palliative care (CBPC) survey	Palliative care clinics
#2: MOQC expanded palliative care survey	MOQC member practices

Survey #1: Clinic-based palliative care (CBPC) survey

- Background:
 - Healthcare organizations are expanding access to palliative care (PC) by opening outpatient clinics
 - Little is known about the density & characteristics of clinic-based palliative care (CBPC) services in MI
- Study aims:
 1. To describe the ***density*** of CBPC services across MI based on region
 2. To describe the ***content*** of CBPC services in MI

CBPC survey: Methods

- Online survey assessed the prevalence of CBPC clinics
- PC programs were identified by:
 - Interviewing key informants
 - Internet searches
 - National Hospice and Palliative Care Organization online directory
 - Hospice and Palliative Medicine discussion boards
 - Snowball sampling from both CBPC and MOQC surveys
- Excluded home health/hospice agencies
- Survey sent to clinical/administrative directors
- Questions asked about clinic characteristics
- Indexed to calendar year 2021
- Responses were gathered from June 2022-Apr 2023

CBPC survey: Results

- 17 non-home health PC programs identified, of which...
 - **16** programs had CBPC programs, with a total of...
 - **33** individual clinics
- Programs include:
 - Ascension Borgess
 - Ascension Genesys
 - Ascension St. John
 - Centracare (Bronson Health)
 - Children's Hospital of Michigan
 - Corewell Health (formerly Spectrum Health)
 - DeVos Children's Hospital
 - Henry Ford Health
 - Karmanos
 - Michigan Medicine
 - Munson Healthcare
 - MyMichigan
 - Trillium (Holland Home)
 - Trinity IHA
 - Trinity Saint Mary's
 - University of Michigan-West

CBPC survey: Clinic characteristics (N=33)

Category	n (%)
Academic-affiliated	6 (18.2%)
Cancer-only diagnosis accepted	13 (40.6%)
Accepts pts from outside health system	24 (77.4%)
Accepts non-English speakers	31 (83.9%)
Covers outside office hours	24 (77.4%)
Accepts pts <18yo	13 (40.6%)
Variable	Mean (range)
# New-patient visits per year	118.9 (6-477)
# Follow-up visits per year	304.7 (25-2000)
Wait time (in weeks)	1.8 (1-8)
% No-shows for new-pt visits	6.1 (0-20)
% Telehealth visits	39.8 (0-100)

CBPC survey: Clinic characteristics (N=33)

Category	n (%)
Academic-affiliated	6 (18.2%)
Cancer-only diagnosis accepted	13 (40.6%)
Accepts pts from outside health system	24 (77.4%)
Accepts non-English speakers	31 (83.9%)
Covers outside office hours	24 (77.4%)
Accepts pts <18yo	13 (40.6%)
Variable	Mean (range)
# New-patient visits per year	118.9 (6-477)
# Follow-up visits per year	304.7 (25-2000)
Wait time (in weeks)	1.8 (1-8)
% No-shows for new-pt visits	6.1 (0-20)
% Telehealth visits	39.8 (0-100)

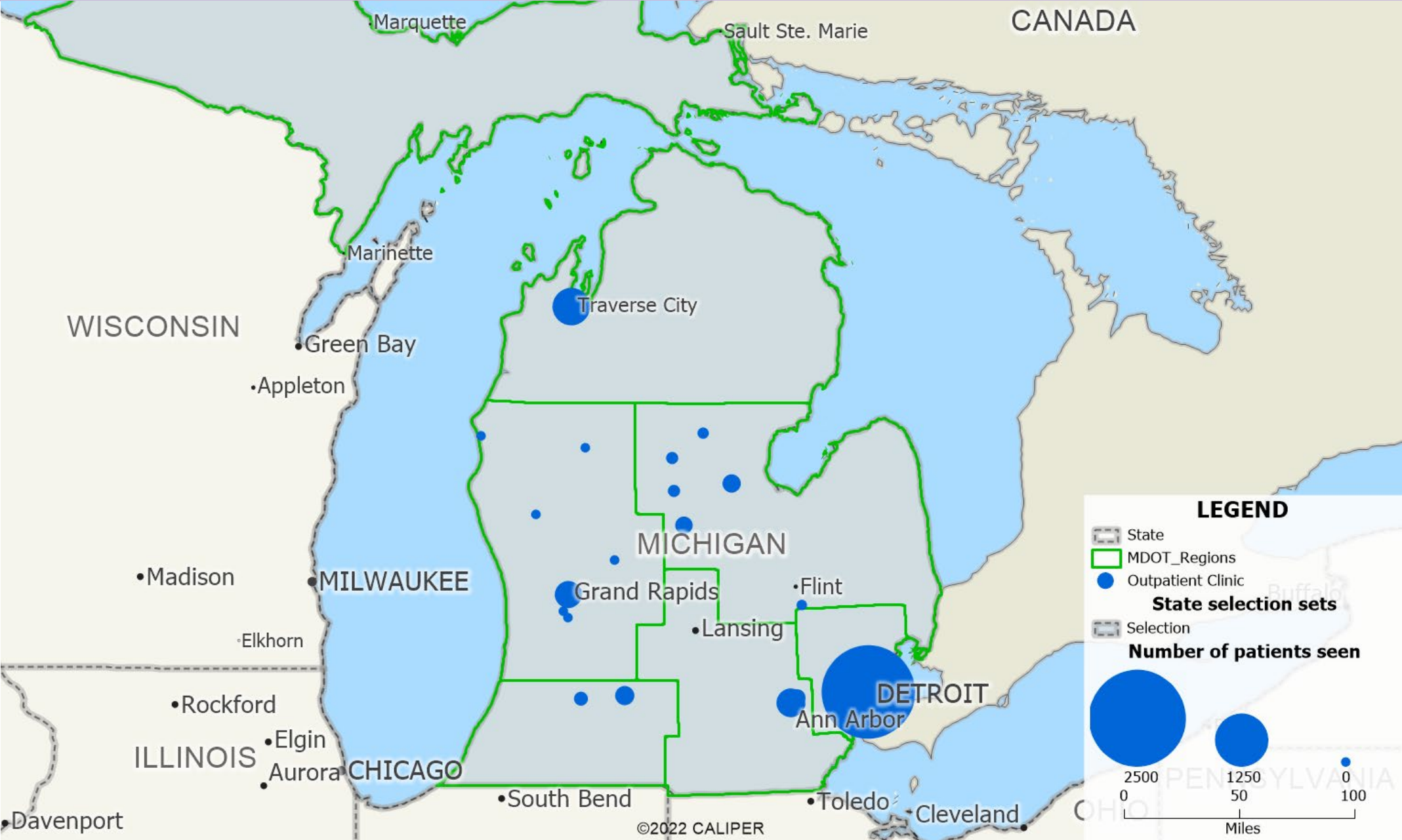
CBPC survey: Clinic characteristics (N=33)

Category	n (%)
Academic-affiliated	6 (18.2%)
Cancer-only diagnosis accepted	13 (40.6%)
Accepts pts from outside health system	24 (77.4%)
Accepts non-English speakers	31 (83.9%)
Covers outside office hours	24 (77.4%)
Accepts pts <18yo	13 (40.6%)
Variable	Mean (range)
# New-patient visits per year	118.9 (6-477)
# Follow-up visits per year	304.7 (25-2000)
Wait time (in weeks)	1.8 (1-8)
% No-shows for new-pt visits	6.1 (0-20)
% Telehealth visits	39.8 (0-100)

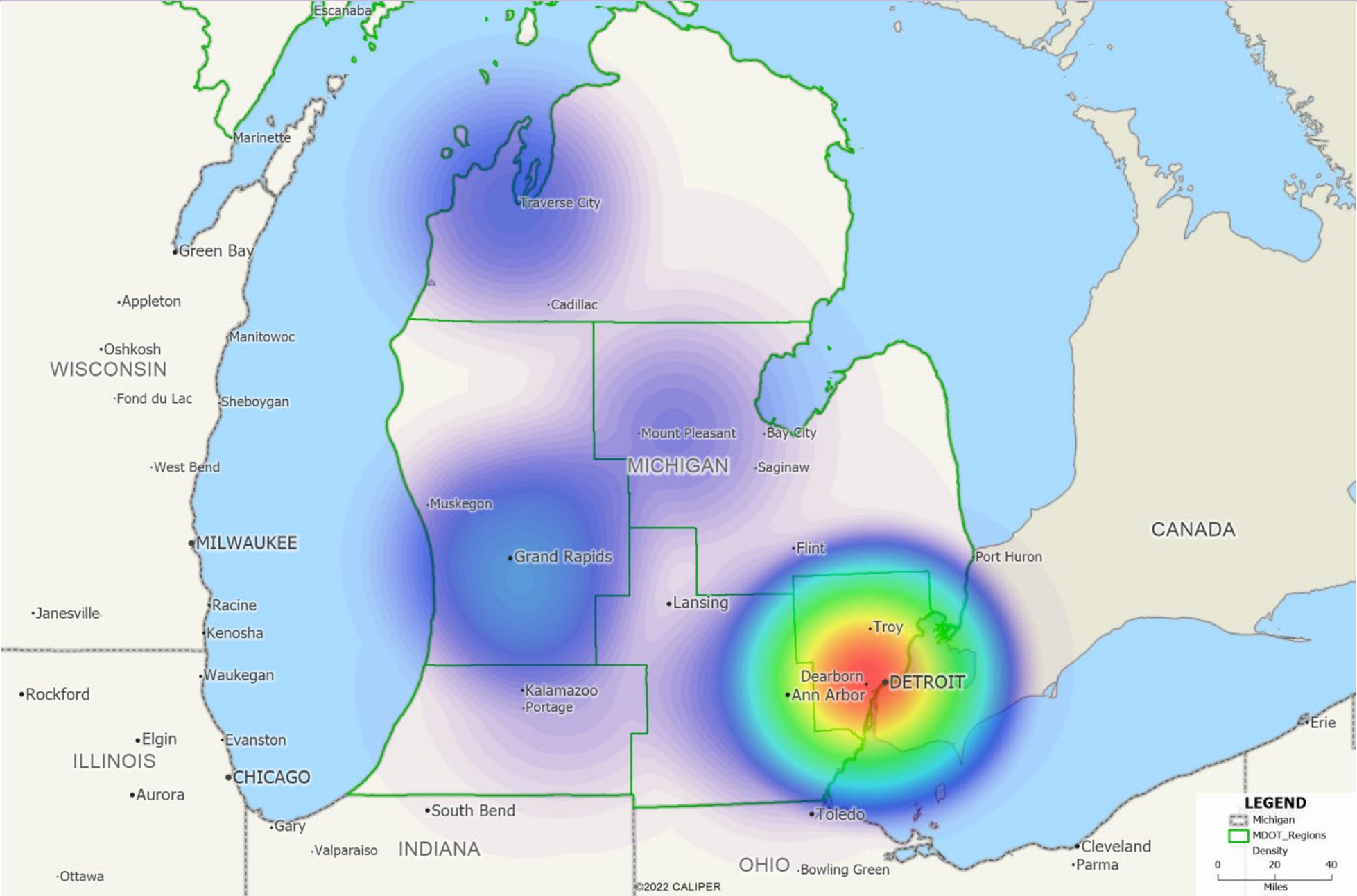
CBPC survey: Clinic characteristics (N=33)

Category	n (%)
Academic-affiliated	6 (18.2%)
Cancer-only diagnosis accepted	13 (40.6%)
Accepts pts from outside health system	24 (77.4%)
Accepts non-English speakers	31 (83.9%)
Covers outside office hours	24 (77.4%)
Accepts pts <18yo	13 (40.6%)
Variable	Mean (range)
# New-patient visits per year	118.9 (6-477)
# Follow-up visits per year	304.7 (25-2000)
Wait time (in weeks)	1.8 (1-8)
% No-shows for new-pt visits	6.1 (0-20)
% Telehealth visits	39.8 (0-100)

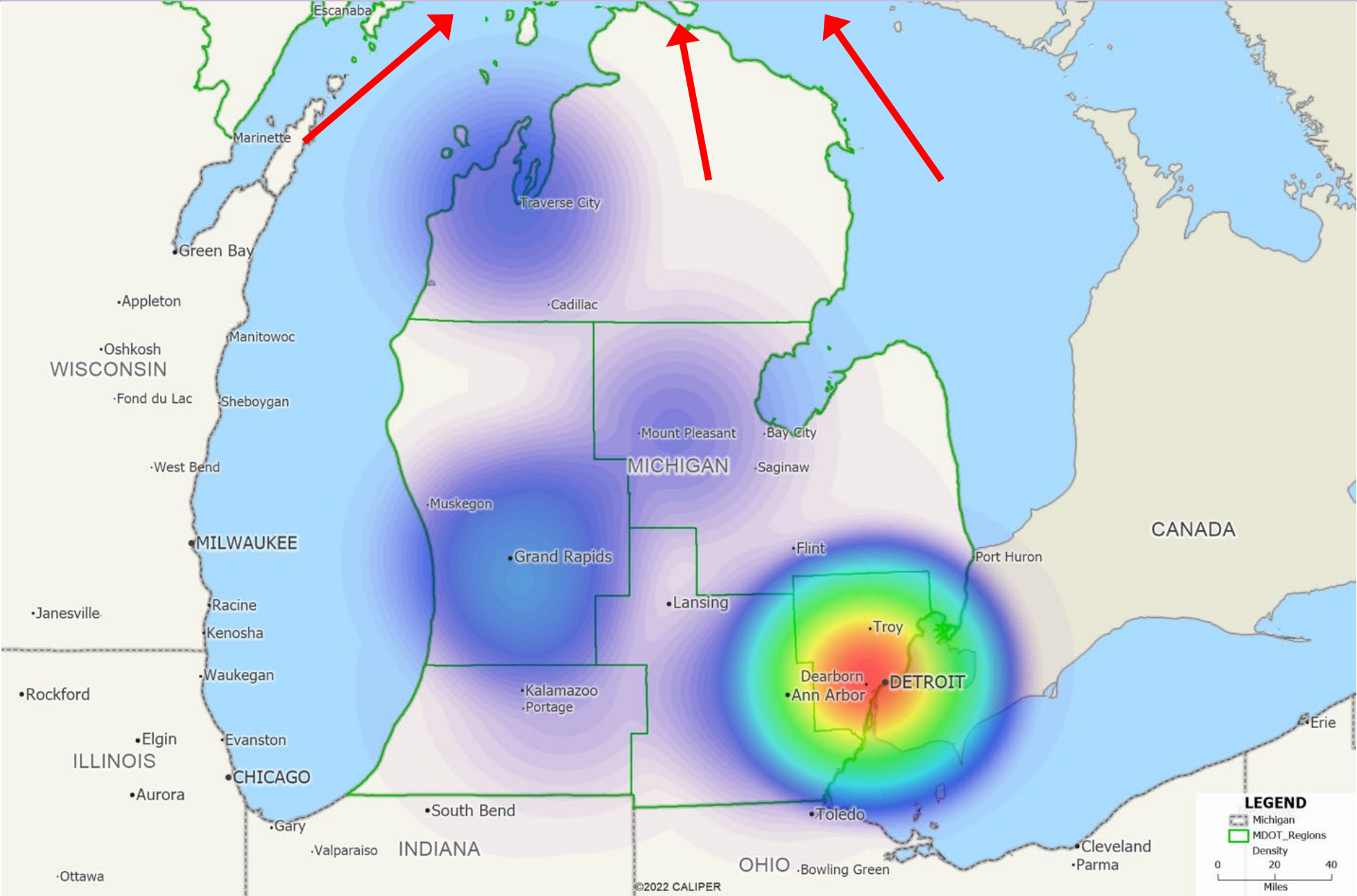
CBPC survey: Clinic location & size



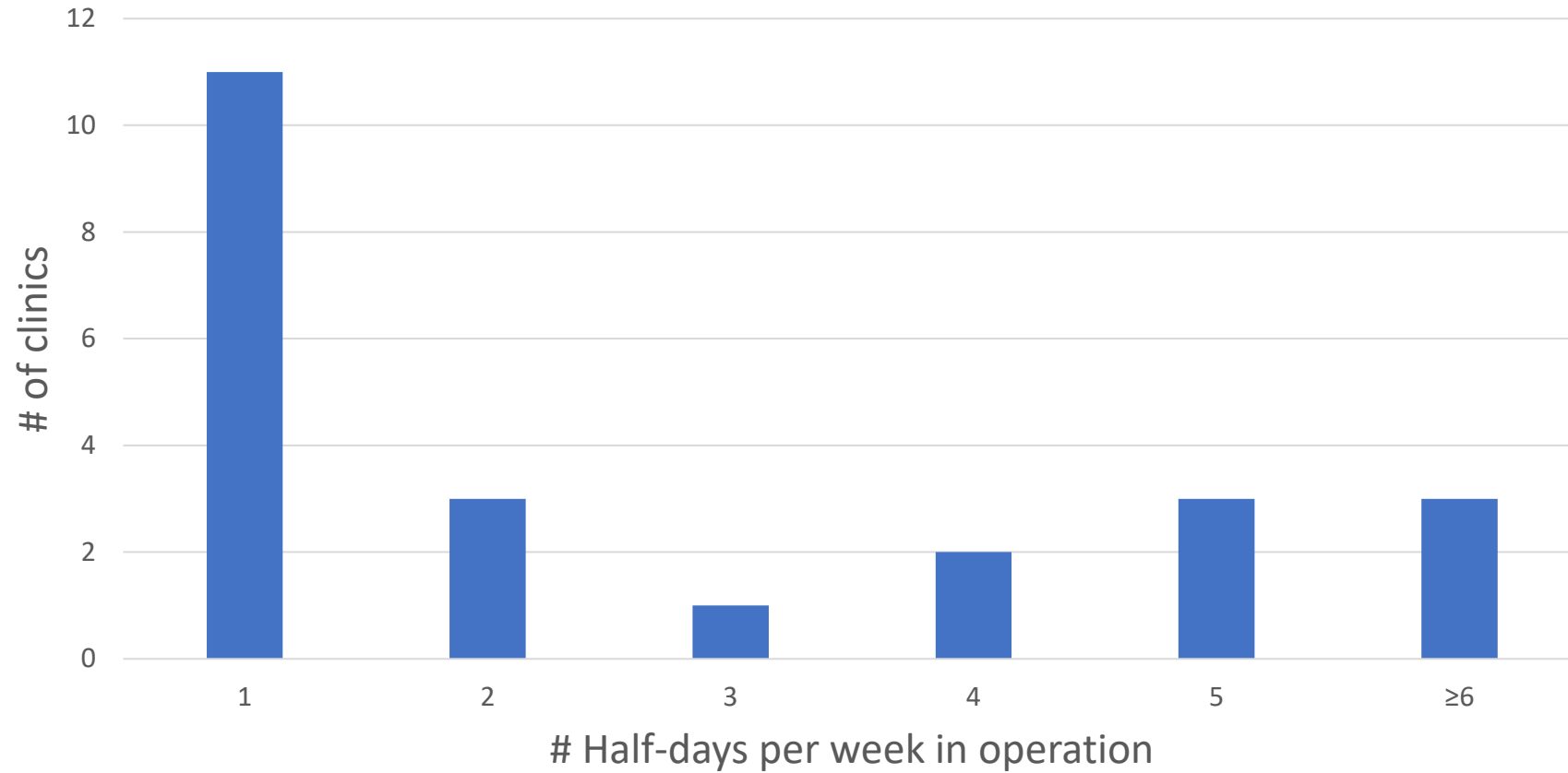
Clinic density in MI



Clinic density in MI

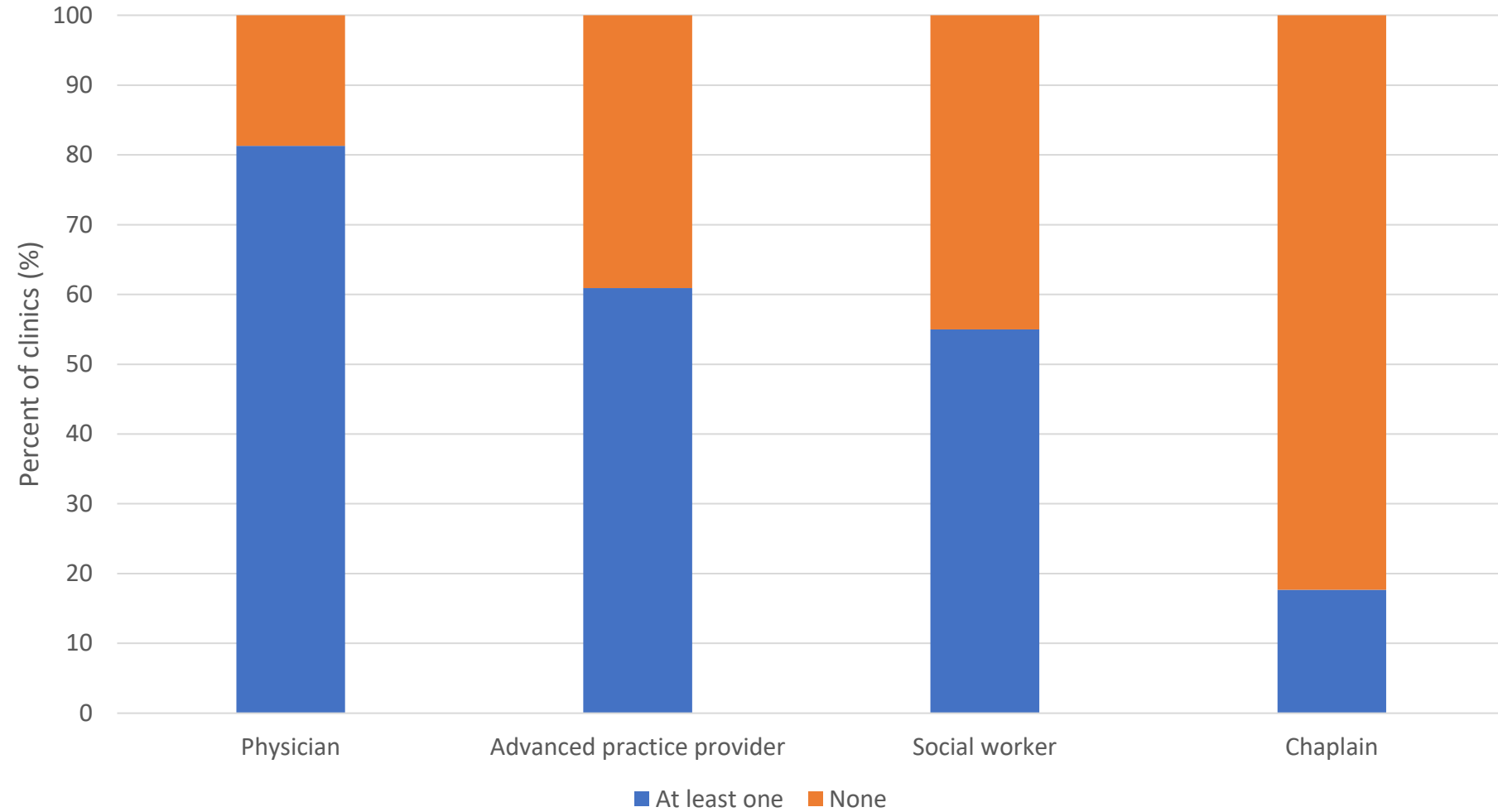


CBPC survey: Clinic capacity



Mean = 3.1 half-days per week (range 1-10)

CBPC survey: Staffing



CBPC survey: Conclusions

- CBPC programs in MI are ***few*** and ***clustered in densely populated areas***
 - Many rural communities do not have access to a physical clinic
 - 40% of CBPC is delivered via ***telehealth***, suggesting an avenue through which care may be provided to remote areas
- 40% of clinics do not see ***non-cancer*** patients
 - May be hard for cancer patients to access PC once they're in remission
- Characteristics ***vary widely*** between programs
 - Providers should not assume all programs offer:
 - At least one physician on staff
 - Pediatric palliative care
 - Telehealth

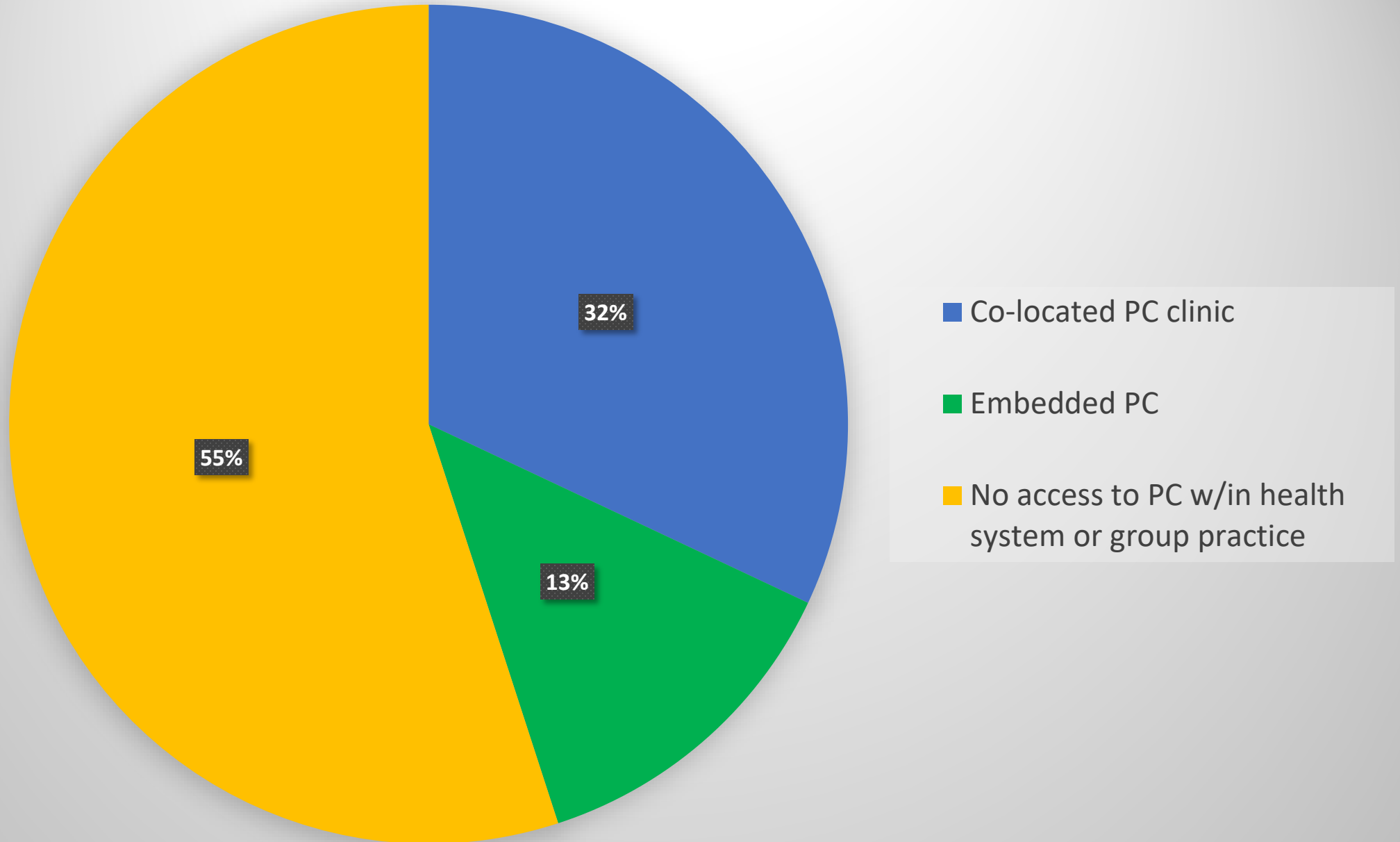
Survey #2: MOQC expanded PC survey

- Survey aims:
 - To assess how oncology practices in MI utilize referrals to PC clinics
 - To explore barriers oncology practices face in PC access, as well as possible avenues around these barriers
- Methods:
 - Online survey
 - Distributed via email to practice manager for each MOQC practice beginning Jan 2023
 - Distributed on paper at regional meetings in Mar-Apr 2023

MOQC PC survey: Results

- Study population:
 - 55 MOQC member practices
- Response rate:
 - 56% as of May 2023
 - 31 total respondents
- Characteristics:
 - 26 Heme-Onc practices; 5 Gyn-Onc practices
 - **55%** have neither a co-located PC clinic nor embedded PC (i.e., who shares the same space & co-manages patients)

MOQC PC survey: Co-located or embedded PC



MOQC PC survey: Practice patterns

- Referrals to PC clinics:
 - # PC clinics referred to: mean 1.9 (range 0-4)
 - Reasons for referral:
 1. Advanced care planning and/or goals of care
 2. Acute/chronic pain
 3. Home care needs
 4. Non-pain symptoms
 5. Mental health
- **79%** of practices refer to *home-based PC*

MOQC PC survey: Barriers

- Availability/access to providers
- Patient knowledge/perceptions
- Geography/transportation
- Insurance coverage
- Lack of communication/collaboration
- Technology
- Burdensome for patients

MOQC PC survey: E-consults

- **43%** would NOT utilize PC e-consults
- Reasons for not utilizing e-consults include:
 - Already having embedded PC (most common)
 - Patients/providers preferring face-to-face visits or home-based PC
 - Lack of staffing support
 - Provider concerns about “lack of integration”

MOQC PC survey: Conclusions

- Most MOQC practices have no access to PC w/in their health system or group practice
- Wide geographic disparities exist in access to PC clinics
- Despite this, 43% of MOQC practices would *not* use e-consults

MOQC PC survey: Conclusions

What are other ways we can improve access to palliative care?

1) *Telehealth*

Issues include:

- Compatibility across EHRs
- Credentialing across health systems
- Developing payment structures
- Not all patients have adequate internet bandwidth, access to computers, or tech literacy

2) *Home-based PC*

Issues include:

- Poor communication back to oncologist
- Only see patients <2x/mo
- Many will not prescribe opioids

MOQC PC survey: Future directions

Plan to survey home-based PC programs

- Map their geographic access across the state
- Describe their operating procedures

Thank you!

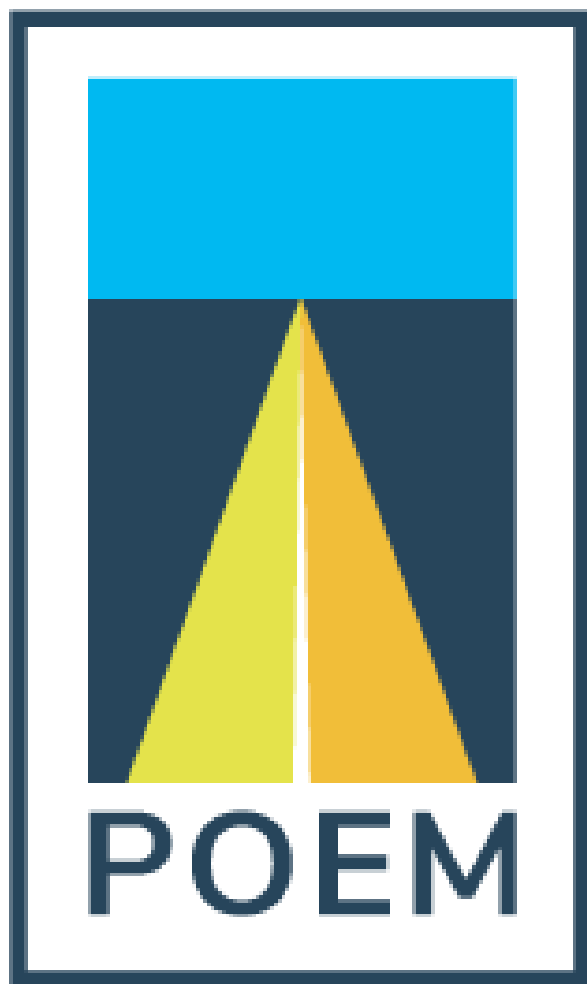
Contact:

Andy Russell, MD/MPH

University of Michigan

russeand@med.umich.edu





Responding to Patient Needs – Embedding Pharmacists in Oncology Practices with POEM

Katie Sias, PharmD, BCOP

MyMichigan Health – Mt. Pleasant, Midland, Alpena, Alma, Gladwin

Mark Wagner, PharmD, BCOP

Munson Healthcare – Traverse City, Cadillac, Charlevoix, Gaylord, Grayling, Manistee

Emily Mackler, PharmD, BCOP

POEM Director

moqc.org/poem

Objectives



Summarize characteristics of the Pharmacists Optimizing Oncology Care Excellence in Michigan (POEM) program



Describe the POEM pharmacists' experience in integrating into community oncology sites



Review outcomes of the POEM program to date



POEM Information

- Collaboration between MICMT and MOQC
- Integration of clinical oncology pharmacists in direct patient care → improve patient care and outcomes
- Based on prior success with the Michigan Pharmacists Transforming Care and Quality (MPTCQ) model of integrating pharmacists in primary care
- Clinical focus areas:
 - Oral anticancer agents (OAAs)
 - Immunotherapy
 - Symptom management and optimization
 - Patients with multiple co-morbidities
 - High risk disease states



POEM Support

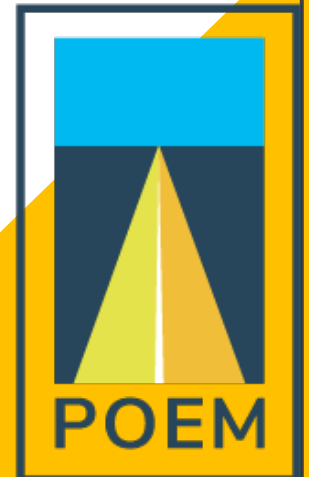
Pharmacist:

- Billing support/guidance
- CPA* support/guidance
- Weekly touch bases and peer collaboration
- Patient advocate involvement
- Data analysis
- Oncology-based education
- Outcome dissemination
- Annual retreat

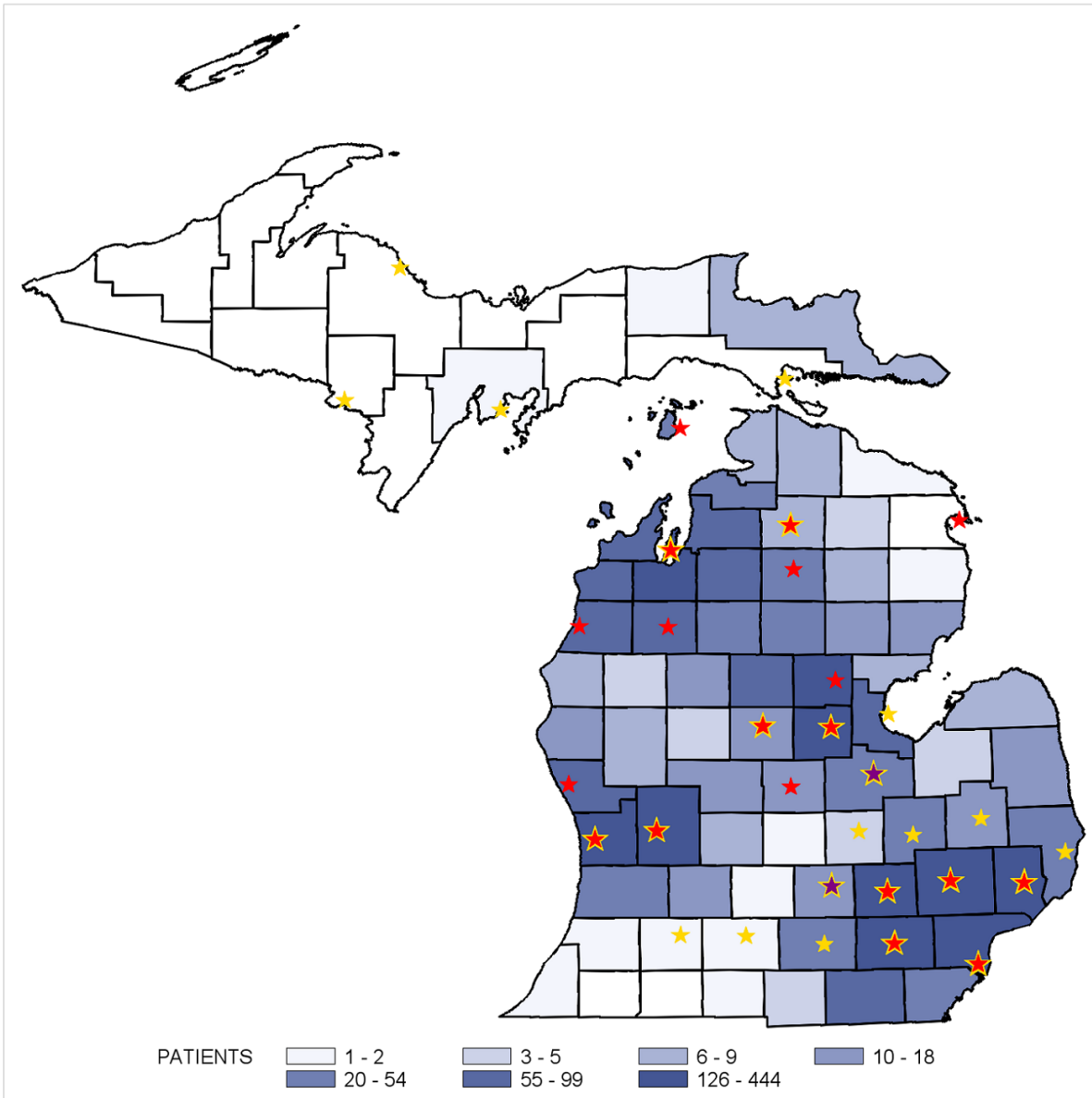
*CPA = Collaborative Practice Agreement

Practice/Physician Organization:

- Pharmacist salary
 - 100% year 1
 - 60% year 2
 - 20% year 3
- Value-based reimbursement
 - 10% on all BCBSM E/M codes → 15% March 2023
- Quarterly reports
- Abstraction support
- Data analysis
- Billing support/guidance



Enrolled Patients by County



Launched October 2020

- 6 Clinical Oncology Pharmacists
- 8 Physician Organizations
- 24 Oncology Sites
- 72 Physicians
- 4171 Patients*
- 12417 Encounters
- 10471 Interventions

*Data up to 3/31/23



Program Growth

- 2022: 4 new pharmacists/sites committed
 - Contracts all signed
 - 1 pharmacist started in Fall 2022 (Munson, 2nd POEM pharmacist)
 - 1 pharmacist started in Spring 2023 (Sparrow Herbert-Herman Cancer Center)
 - Remaining 3 sites anticipate Summer 2023 starts
 - Corewell Health (Spectrum Health), Grand Rapids
 - Covenant HealthCare, Saginaw
 - The Cancer and Hematology Centers, Grand Rapids, Holland, Norton Shores
- 2023: We're still recruiting! Please let us know if interested.



Objectives



Summarize characteristics of the Pharmacists Optimizing Oncology Care Excellence in Michigan (POEM) program



Describe the POEM pharmacists' experience in integrating into community oncology sites



Review outcomes of the POEM program to date



Cohort 1

Pharmacist Clinical Focus	Start Date	1 st RedCap Encounter	CPA Approval Date	Care Mngmt Billing before POEM	Care Mngmt Billing post POEM
EJ OAAs + Comorbidities	10/12/20	11/13/20	12/2020	Yes	Yes
CM Immunotherapy	11/1/20	3/30/21	Pending	Yes – only RN, SW	Yes

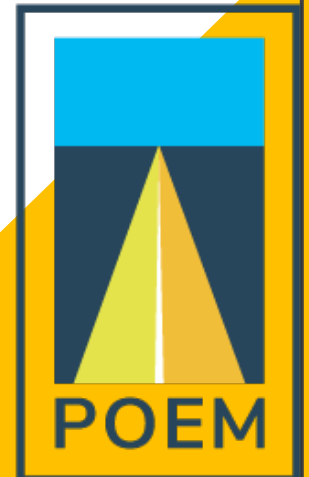
*CPA = Collaborative Practice Agreement



Cohort 2

Pharmacist Clinical Focus	Start Date	1 st RedCap Encounter	CPA Approval Date	Care Mngmt Billing before POEM	Care Mngmt Billing post POEM
KS OAAs + High Risk	3/8/21	4/21/21	4/2021	No	Yes
MW Symptoms/PROs → OAAs	7/5/21	7/26/21	8/2021	No	Yes
JG OAAs	8/30/21	10/21/21	9/2022	Yes	Yes
OY OAAs	10/5/21	3/2022	3/2022	Yes	Yes

*CPA = Collaborative Practice Agreement



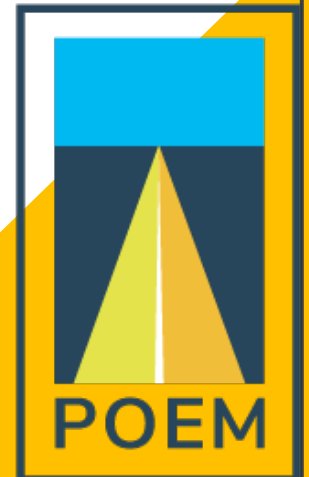
Most Common Medication Interventions

- Optimizing antiemetic use
- Constipation management
 - Antiemetic side effect
 - Opioid use and no prophylaxis
- Gastrointestinal symptom management – diarrhea and nausea
- Complimentary and Alternative Medicine (CAM) and other drug interactions



Team Accolades

- BCOP (Board Certified Oncology Pharmacist) – passed 1 year post POEM engagement
- Multiple CE talks for the State via MICMT and MOQC
- American Society of Clinical Oncology (ASCO) Quality Care Symposium Poster – Fall 2021 and Fall 2022
- MOQC Annual Meeting Presentation – January 2022
- Hematology/Oncology Pharmacy Association (HOPA) Annual Conference Presentations
 - April 2022 Collaborative Practice Agreements
 - April 2023 Platform Research Presentation on Immune Checkpoint Inhibitor Management
- MSHO Oncology Pharmacists Forum – May 2022 and 2023
- Podcast – May 2023



Learning Objectives



Summarize characteristics of the Pharmacists Optimizing Oncology Care Excellence in Michigan (POEM) program



Describe the POEM pharmacists' experience in integrating into community oncology sites



Review outcomes of the POEM program to date



Outcome Assessment

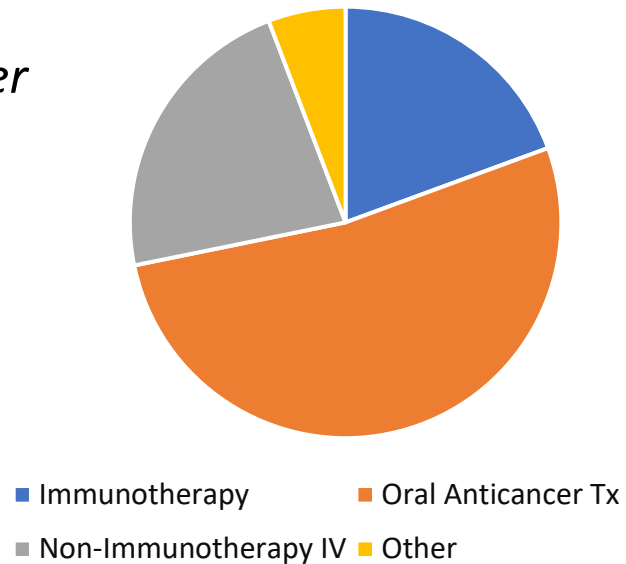
- Pharmacist report – RedCap
 - Patient demographics
 - Encounters
 - Interventions
- Patient satisfaction
- Physician satisfaction
- Care management billing optimization
- Abstracted pre- and post-outcomes
- Reimbursement for services and program participation



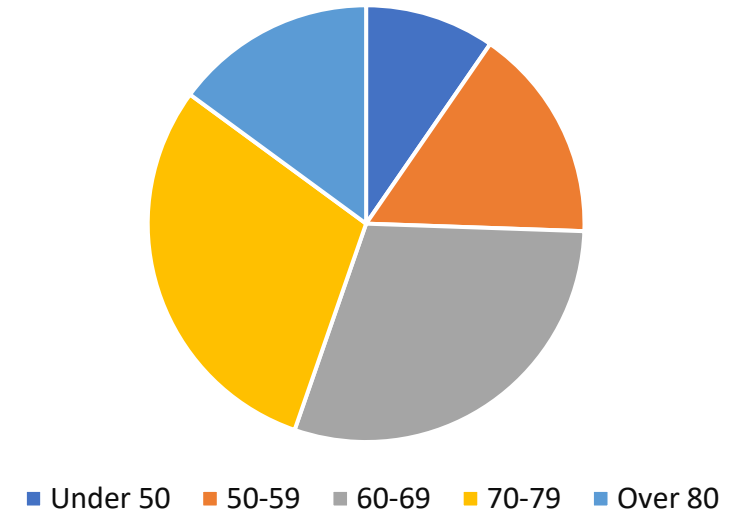
Data – Demographics

- Female: 49%
- White: 92%, Black: 5%
- 12% of patients live in small towns or rural areas
- 25% of patients live in a zip code where the mean household income is <\$35,000/year (*cancer treatments - \$10,000 - \$20,000/month*)

Reason for Enrollment

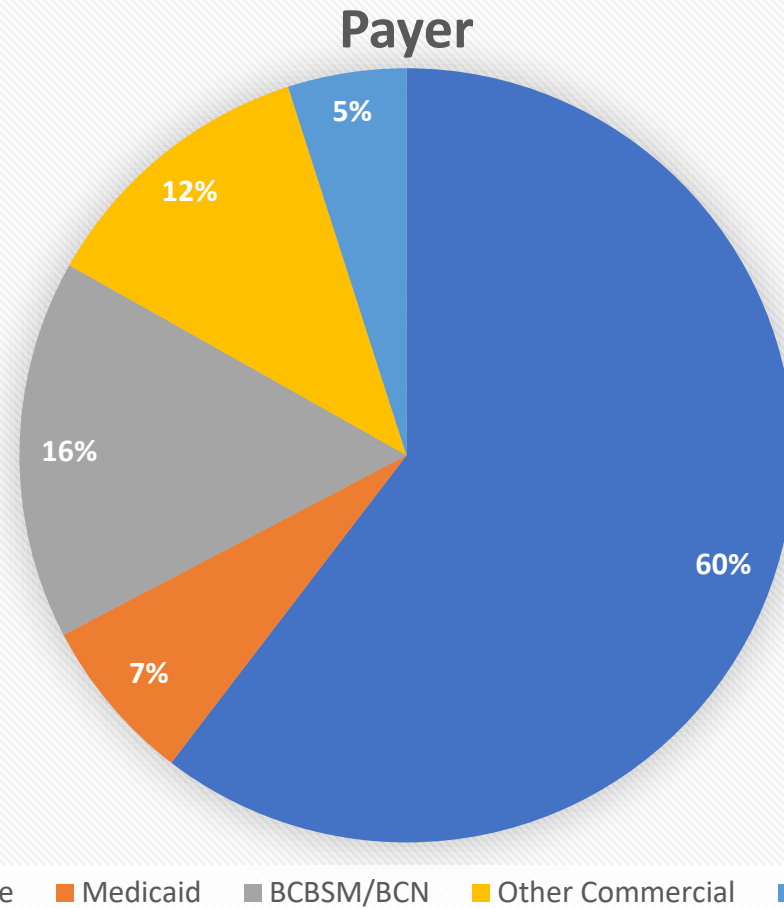


Age



Data up to 12/31/22

Data – Insurance

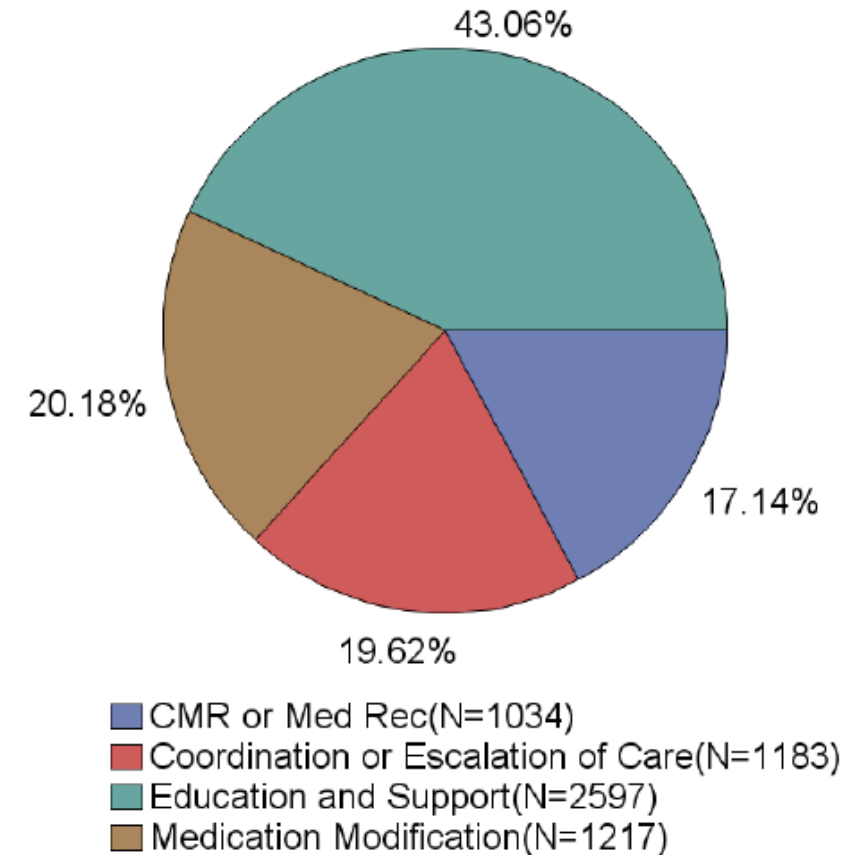


Data up to 12/31/22

Data – Outcomes

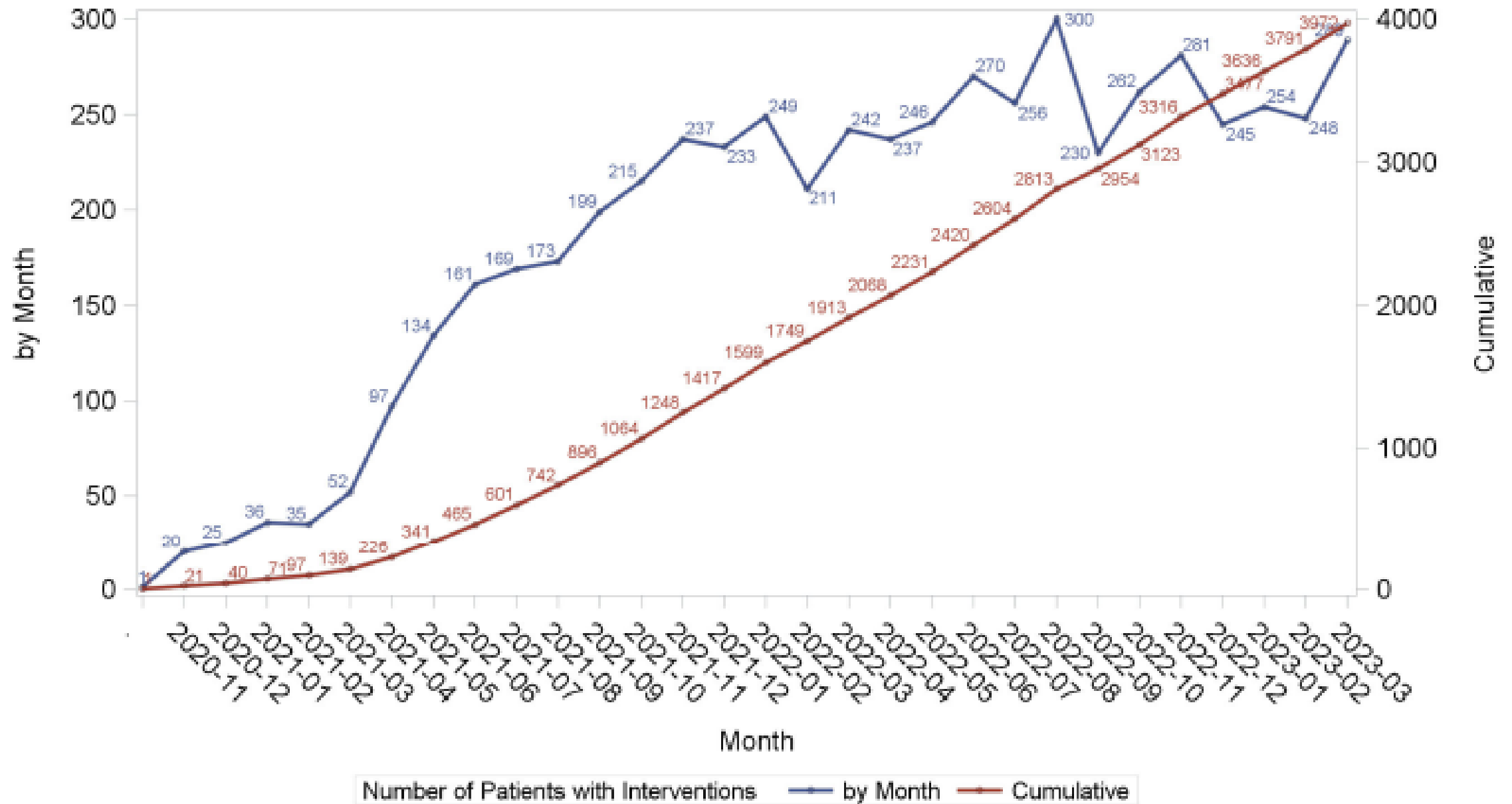
- Encounters
 - 100 encounters/week over the last year
 - 97 encounters/week over the past quarter
- 67% of encounters billed a care management code
- Interventions
 - Include comprehensive medication reviews or medication reconciliation, coordination or escalation of care, education, and medication modifications
 - 116 interventions/week over the last year
 - 123 interventions/week over the past quarter

Type of Intervention – Past Year

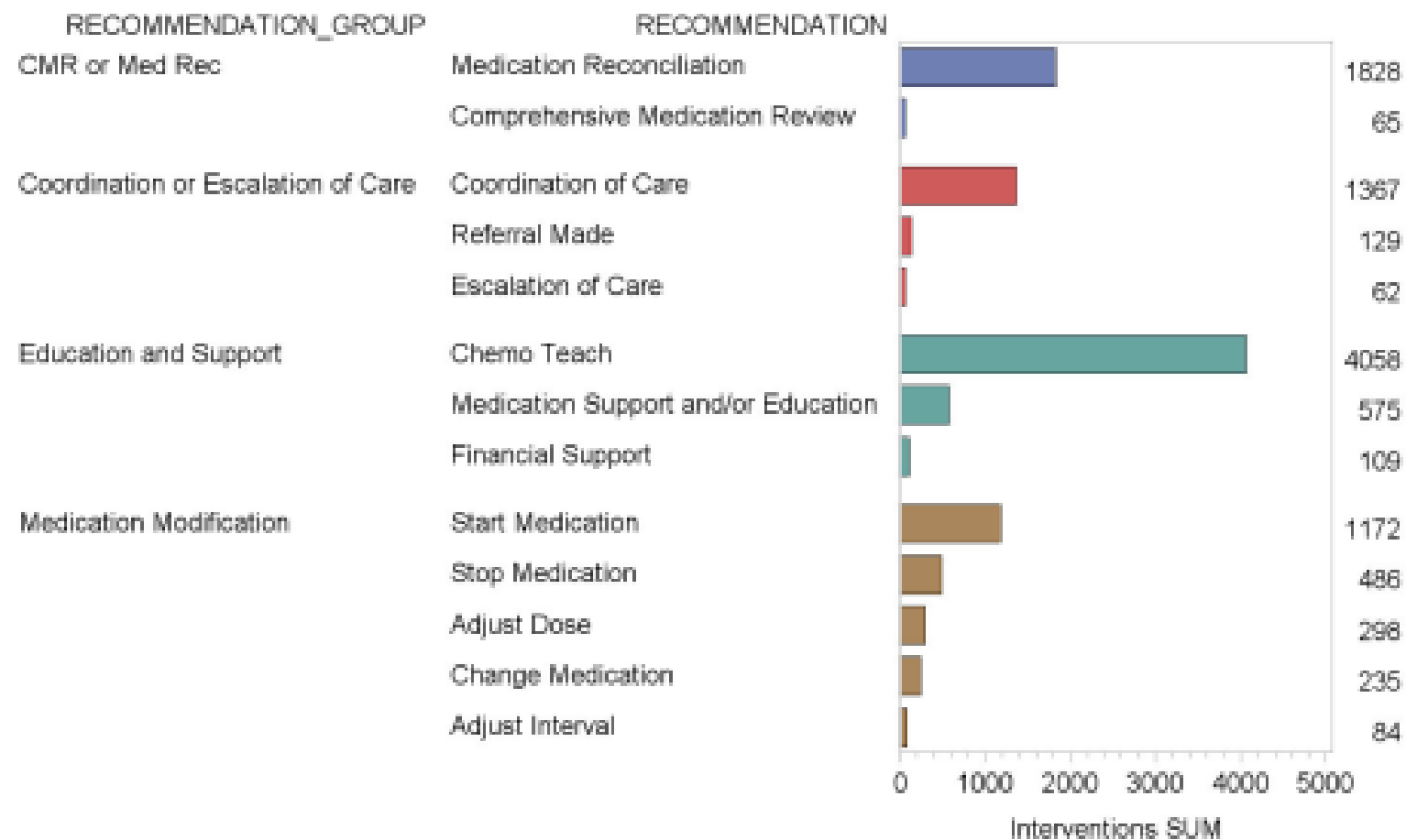


Data over the last year 4/22 – 3/23

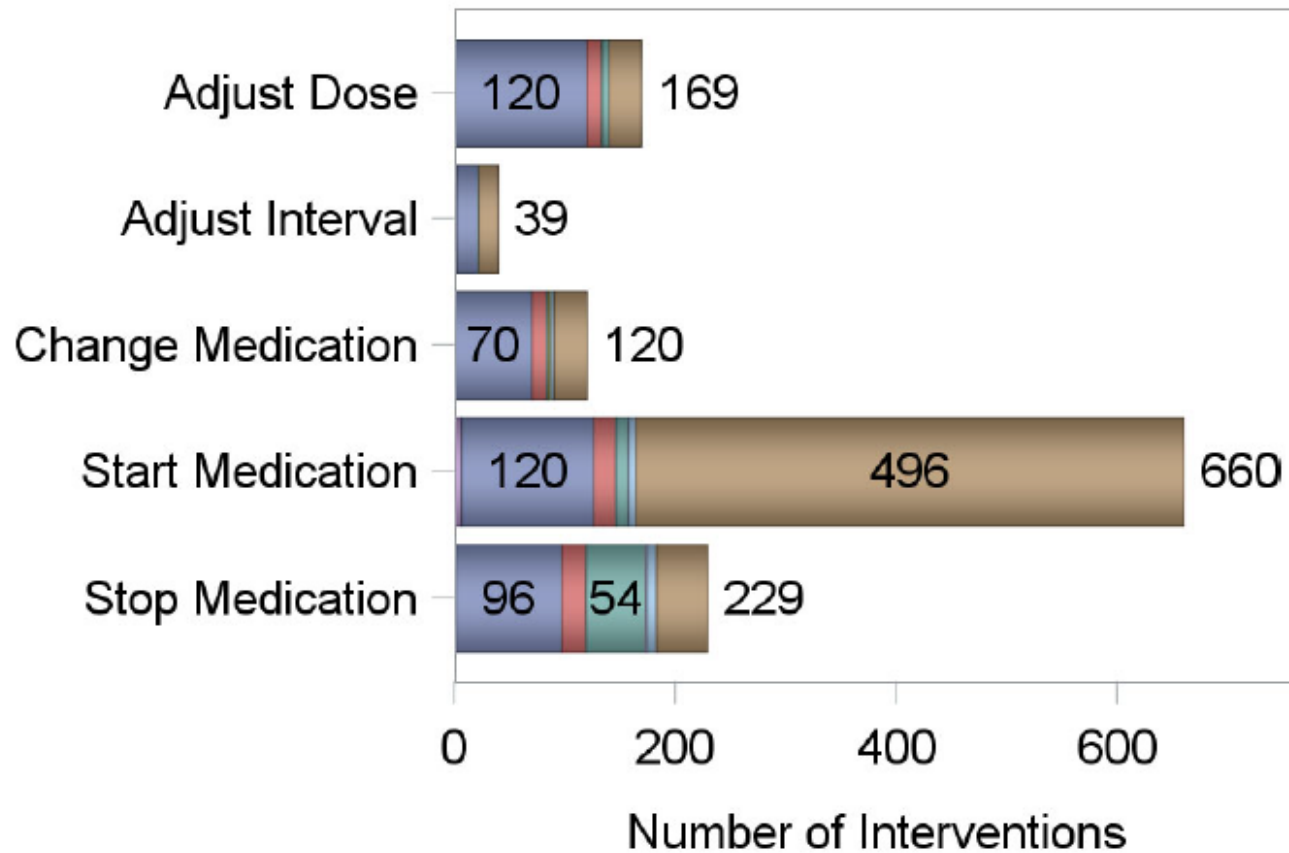
Number of Patients with Intervention(s) by Month



Data – Interventions

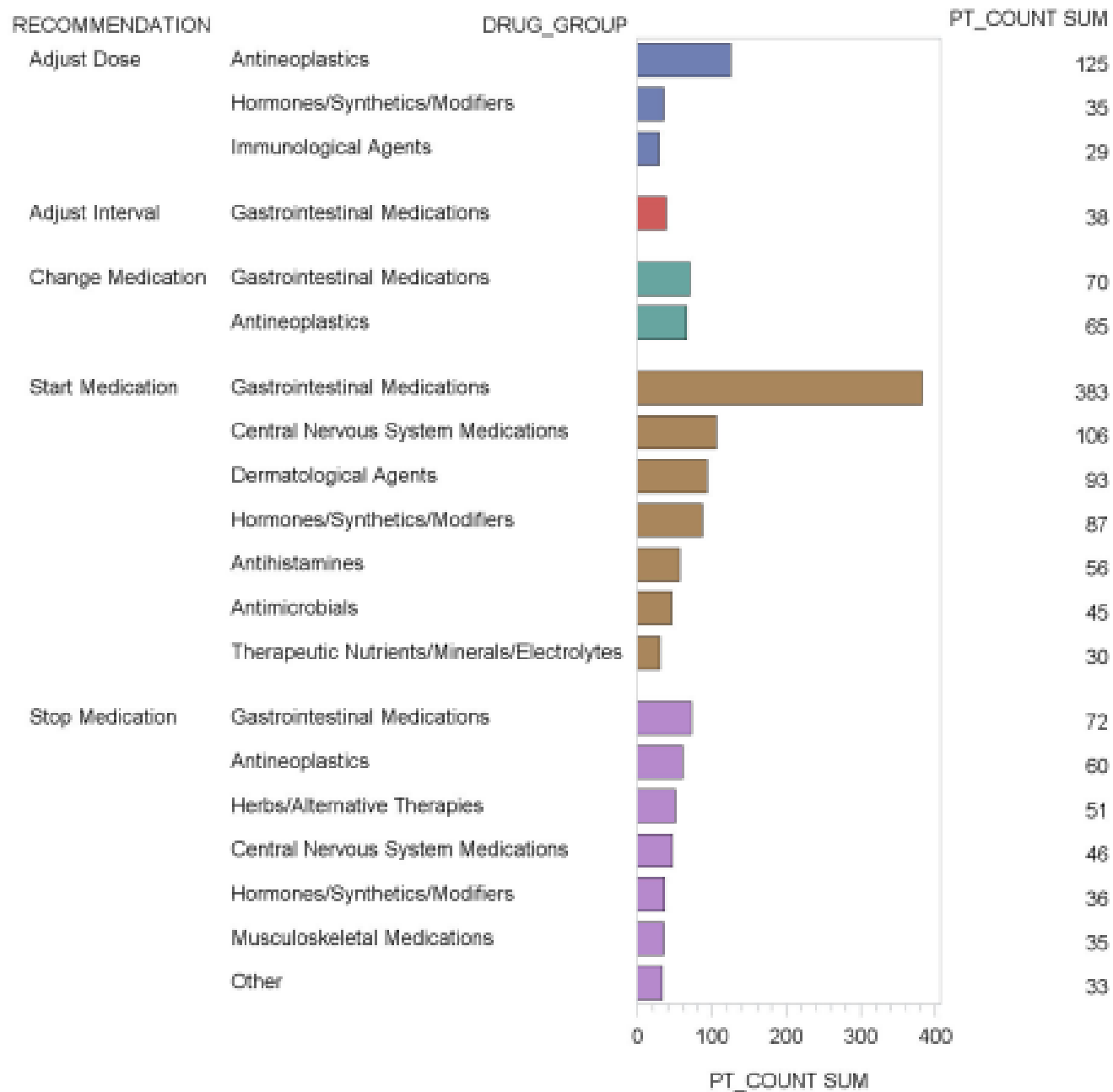


Data up to 3/31/23



Data – Medication Modifications

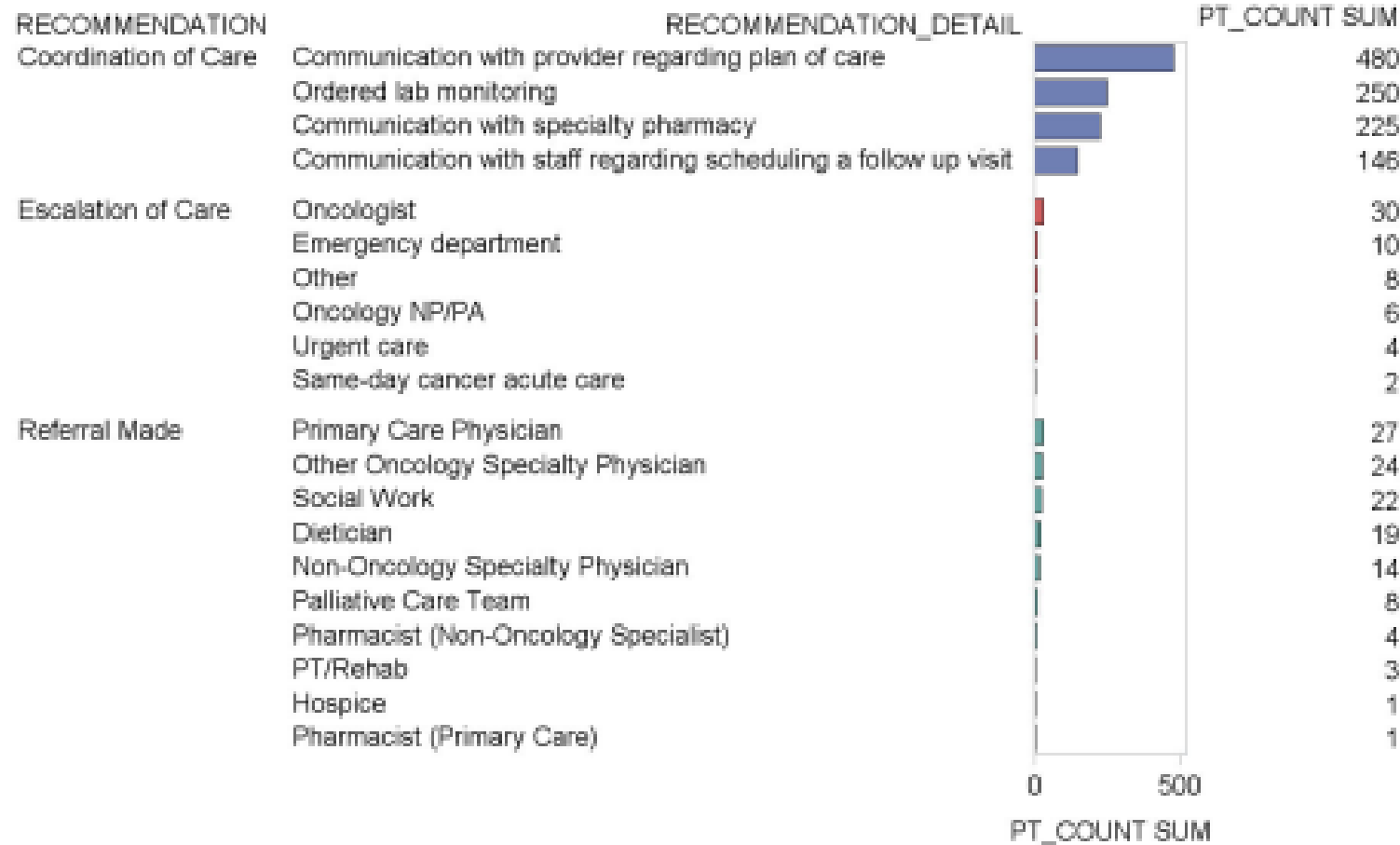
Data over the last year 4/22 – 3/23



Data – Medication Modifications

Data up to 3/31/23

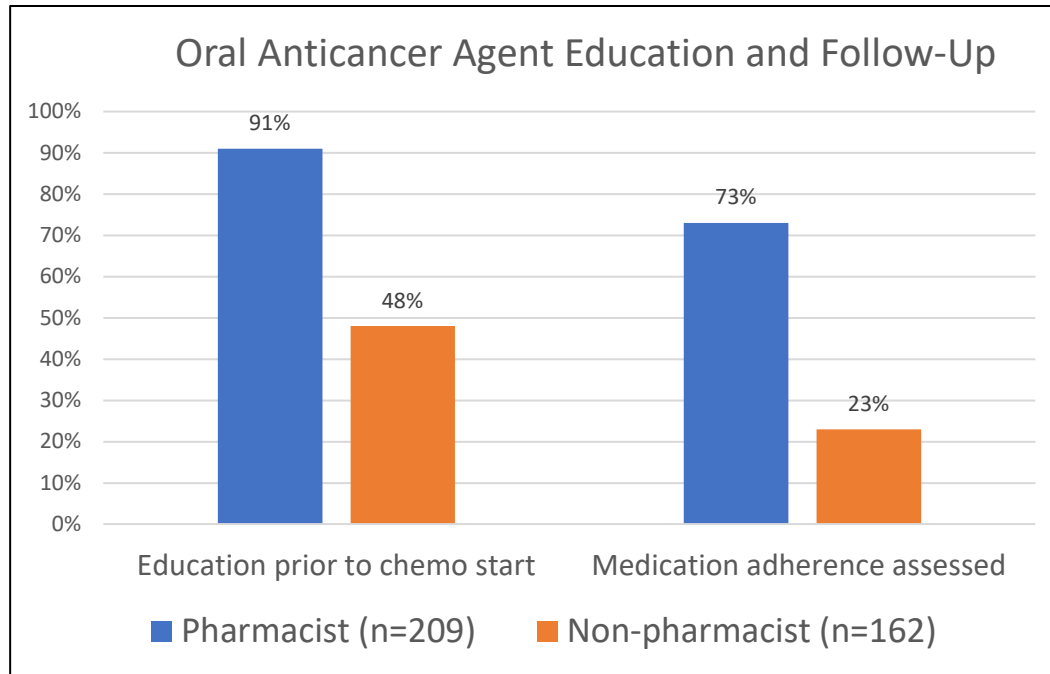
Data – Care Coordination



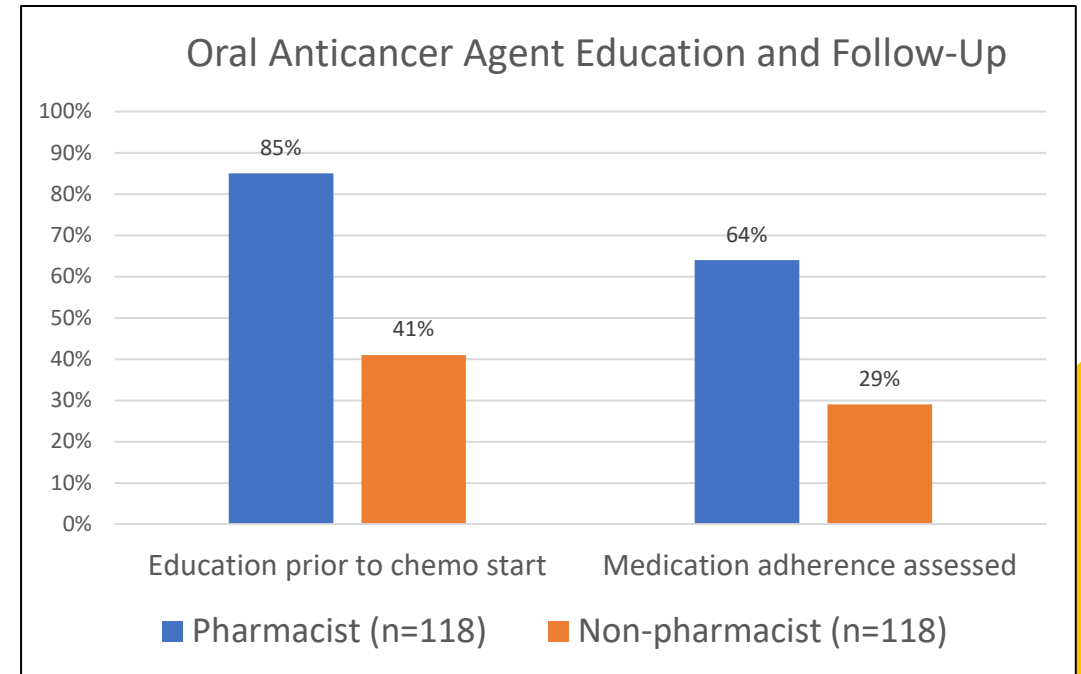
Data up to 3/31/23

Guideline/Quality Measure Compliance

Site 1 - OAAs



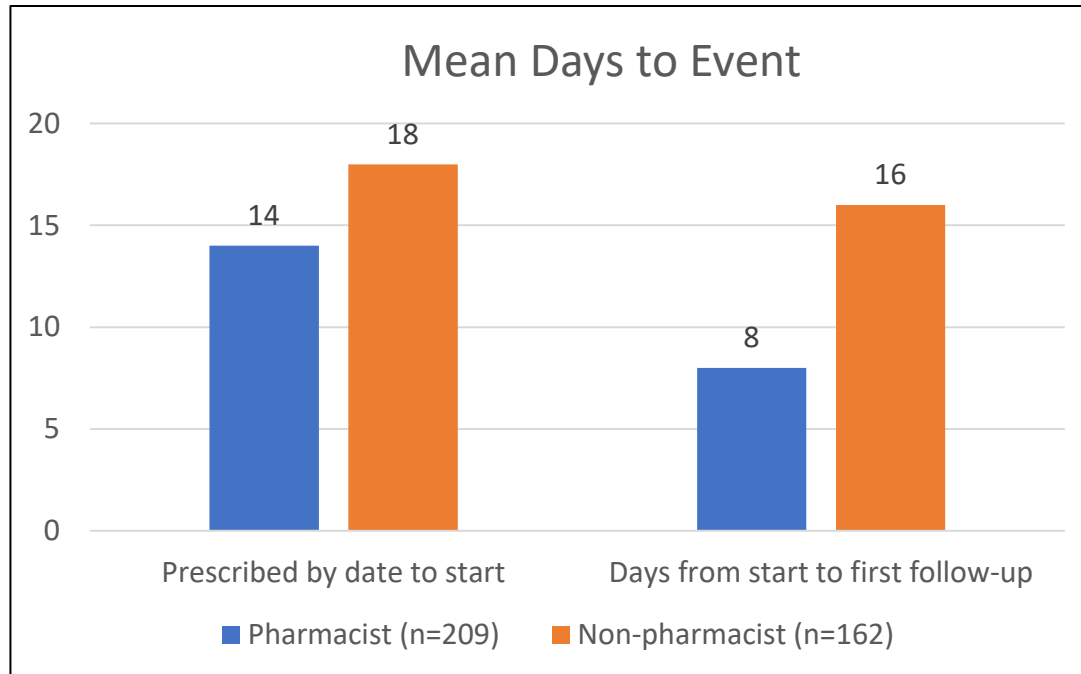
Site 2 - OAAs



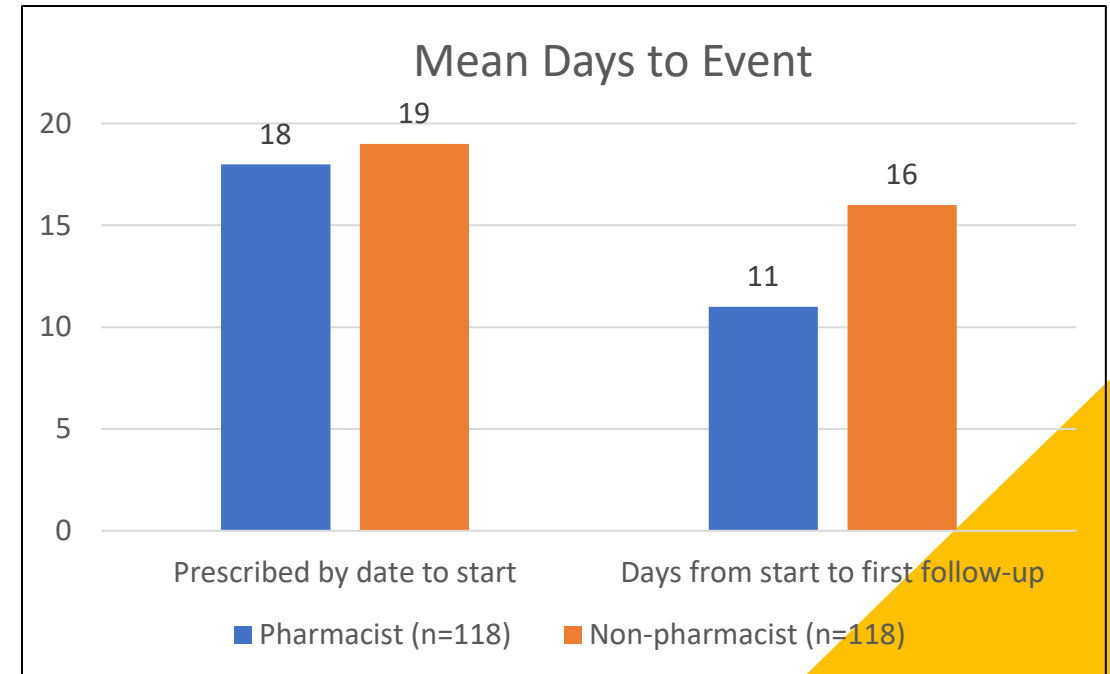
Abstracted data from 2 POEM sites. N=607 patients beginning treatment with oral anticancer agents (OAAs). Non-pharmacist group at both sites had OAA patient care provided by clinic nurses prior to pharmacist start.

Guideline/Quality Measure Compliance

Site 1 - OAAs



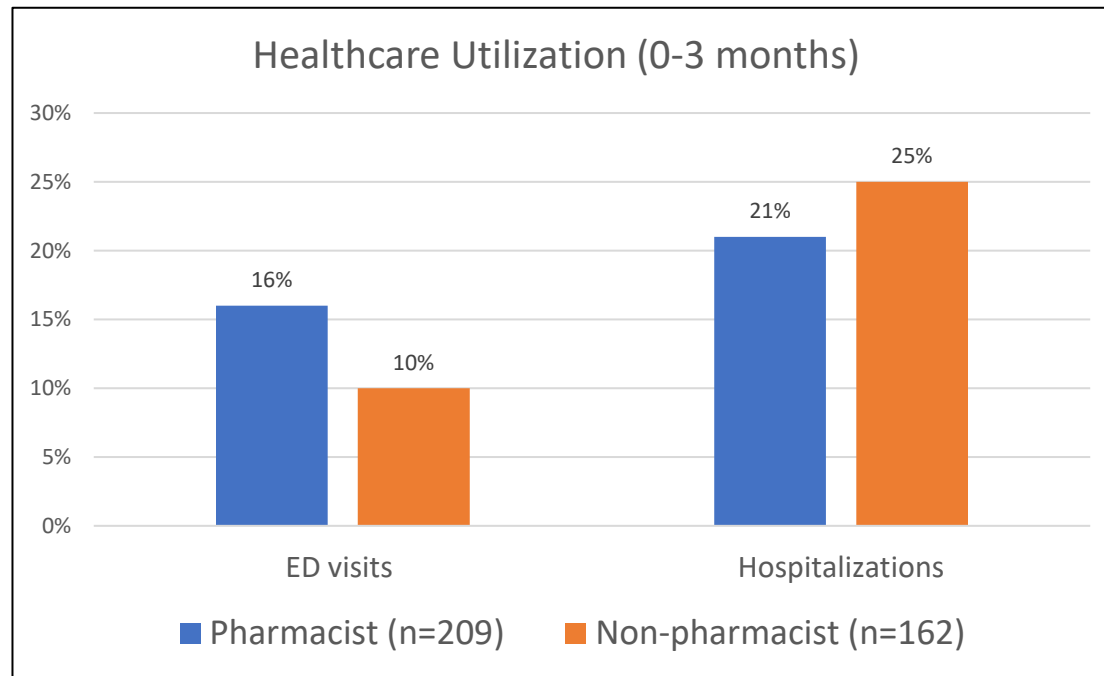
Site 2 - OAAs



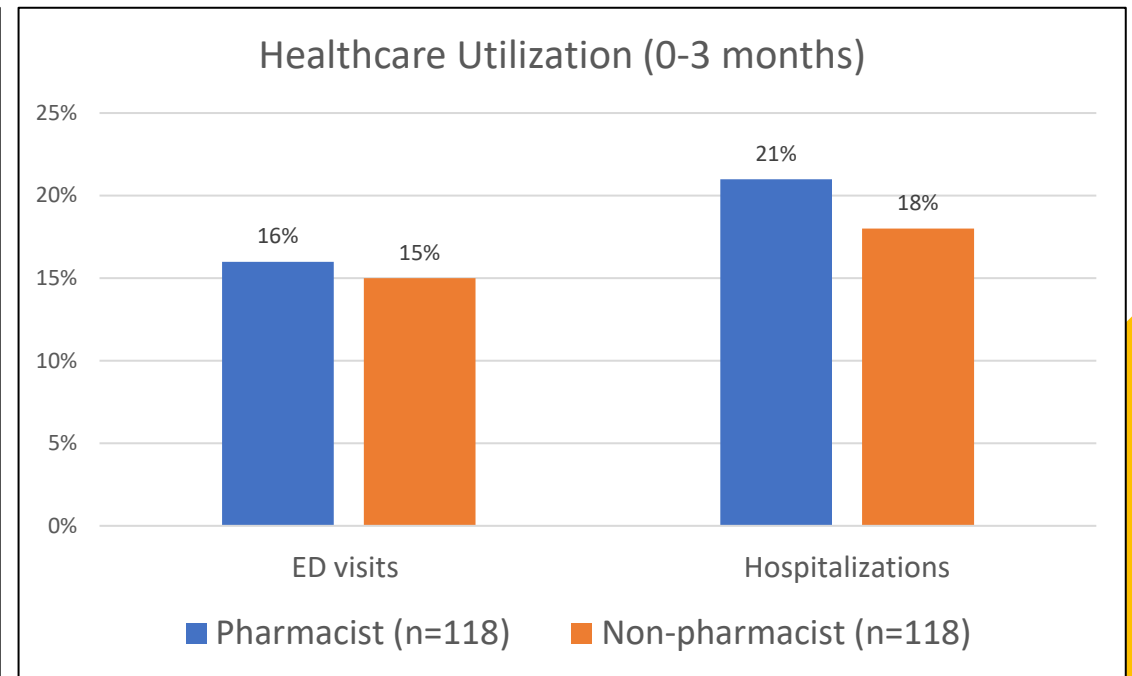
Abstracted data from 2 POEM sites. N=607 patients beginning treatment with oral anticancer agents (OAAs). Non-pharmacist group at both sites had OAA patient care provided by clinic nurses prior to pharmacist start.

Healthcare Utilization

Site 1 - OAAs



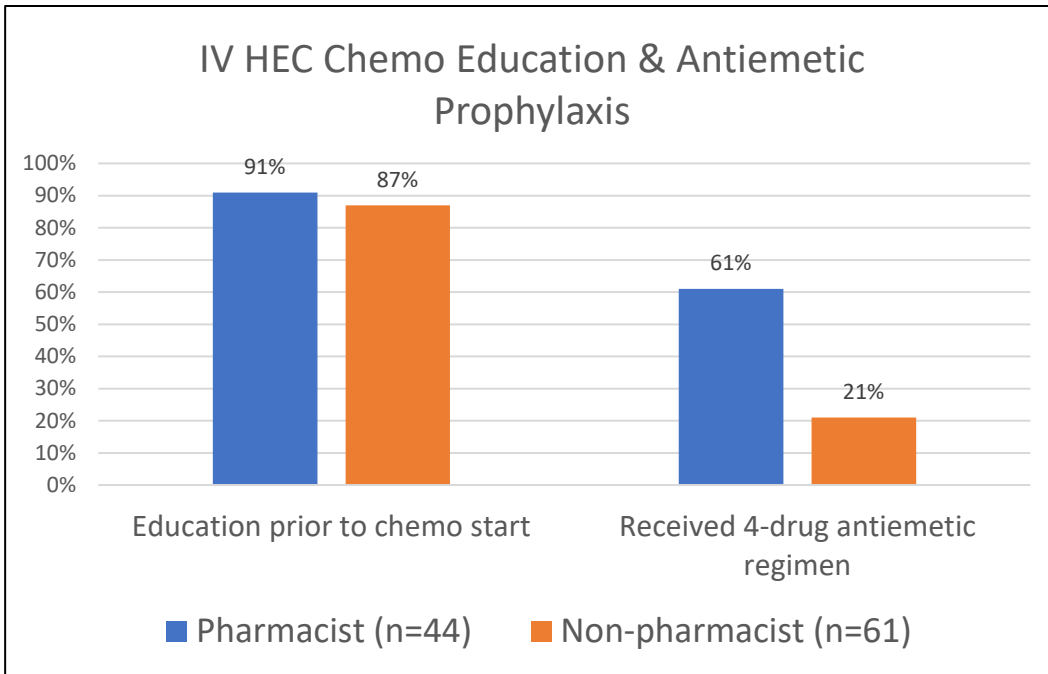
Site 2 – OAAs



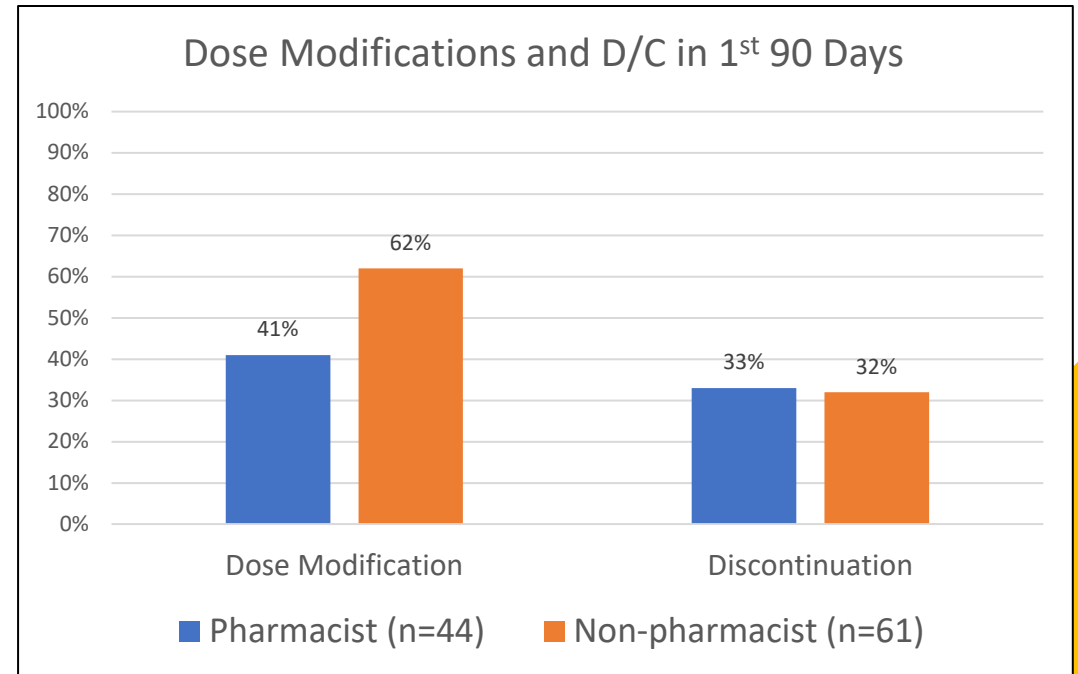
Abstracted data from 2 POEM sites. N=607 patients beginning treatment with oral anticancer agents (OAAs). Non-pharmacist group at both sites had OAA patient care provided by clinic nurses prior to pharmacist start.

Quality and Outcome Measures

Site 2 – IV HEC



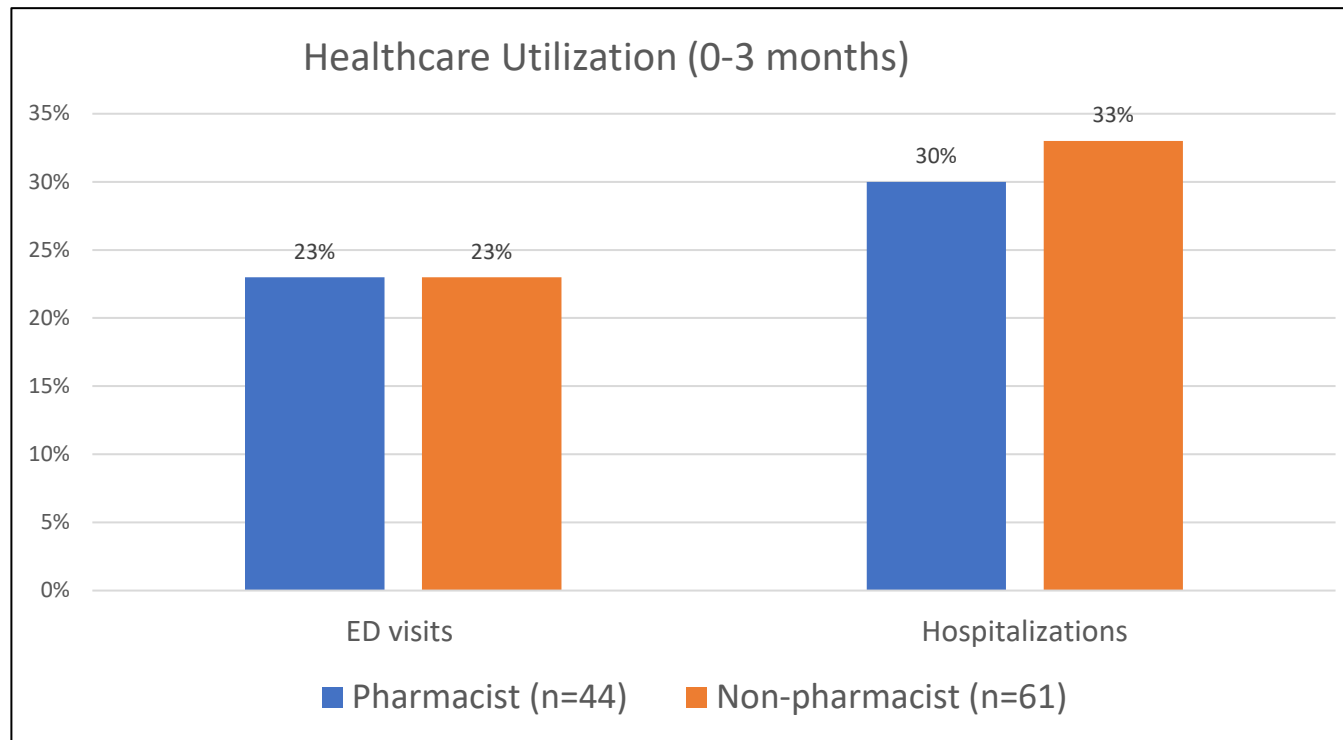
Site 2 – IV HEC



Abstracted data from 1 POEM site. N=105 patients beginning treatment with IV High Emetic Risk Chemotherapy Regimens. Non-pharmacist group patient care provided by clinic nurses prior to pharmacist start.

Healthcare Utilization

Site 2 – IV HEC

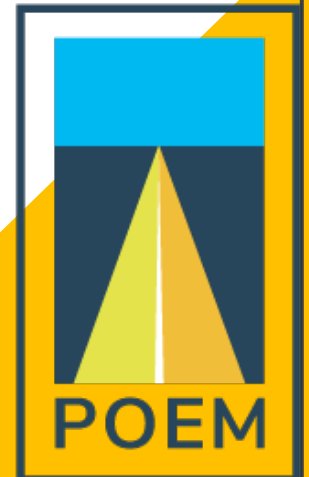


Abstracted data from 1 POEM site. N=105 patients beginning treatment with IV High Emetic Risk Chemotherapy Regimens. Non-pharmacist group patient care provided by clinic nurses prior to pharmacist start.

Case Example 1:

Sotorasib - Hepatotoxicity

- POEM pharmacist provided OAA education for sotorasib
- Day 17 – OV with oncologist
 - Mild rash/pruritus – oncologist discussed options with POEM pharmacist – implemented loratadine +/- triamcinolone ointment if needed
 - Mild elevation in LFTs - no intervention indicated
- Day 35 – borderline Grade 3 LFT elevation – POEM pharmacist discussed with oncologist
 - Held sotorasib
 - Will restart once LFTs return to Grade ≤ 1 at 50% dose reduction (480 mg daily)
 - Restarted Day 49 – monitoring LFTs weekly going forward
- Day 55 – Grade 3 LFT elevation – POEM pharmacist notified oncologist
 - Held sotorasib
 - Will restart once LFTs return to Grade ≤ 1 at 50% dose reduction (240 mg daily)
 - Restarted Day 71 – monitoring LFTs weekly
- Day 76 – Grade 3 LFT elevation – POEM pharmacist notified oncologist
 - Sotorasib permanently held



Case Example 2:

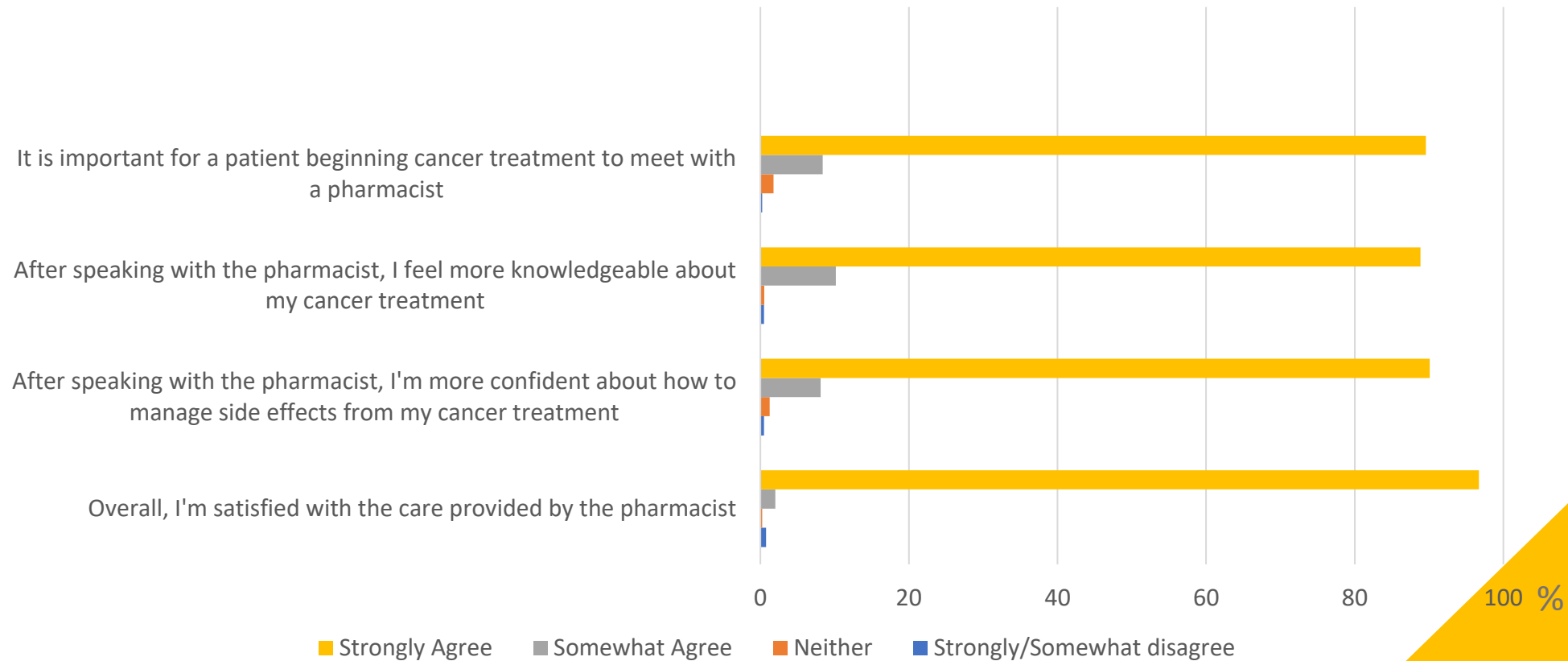
Selinexor – Nausea Regimen

- POEM pharmacist provided OAA education for selinexor
 - Highly emetogenic, nausea prophylaxis required. Generally recommended to include steroid + 5HT3RA + NK1RA or olanzapine.
 - Steroid already ordered by oncologist for myeloma treatment.
 - Pharmacist opted to avoid 5HT3RA, as patient has congenital long QT syndrome, and olanzapine, due to patient's age (77). Pharmacist added oral NK1RA for nausea prevention along with trimethobenzamide PRN for breakthrough N/V.
 - Day 15 – Follow-up visit with POEM pharmacist
 - Tolerating well, no nausea
 - Day 35 – Follow-up visit with oncologist
 - Tolerating well, no nausea
 - Day 55 – Follow up visit with POEM pharmacist
 - Pharmacist and patient discussed trial decrease of NK1RA dose since nausea well-controlled throughout initial 2 months
 - Day 62 – Follow up visit with oncologist, increased selinexor dose → visit with POEM pharmacist to discuss change in regimen
 - Day 90 – Follow up visit with oncologist, change in treatment plan due to progression



Patient Experience Survey

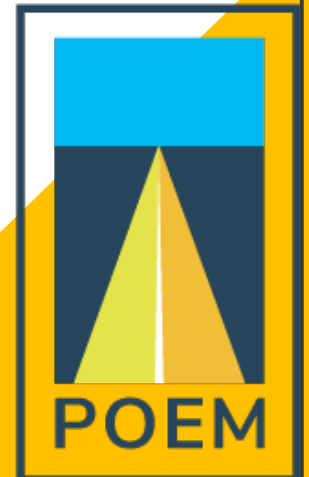
Overall satisfaction across all items: 91% Strongly agree, 7% Somewhat agree, 1% neither, <1% disagree



N=394

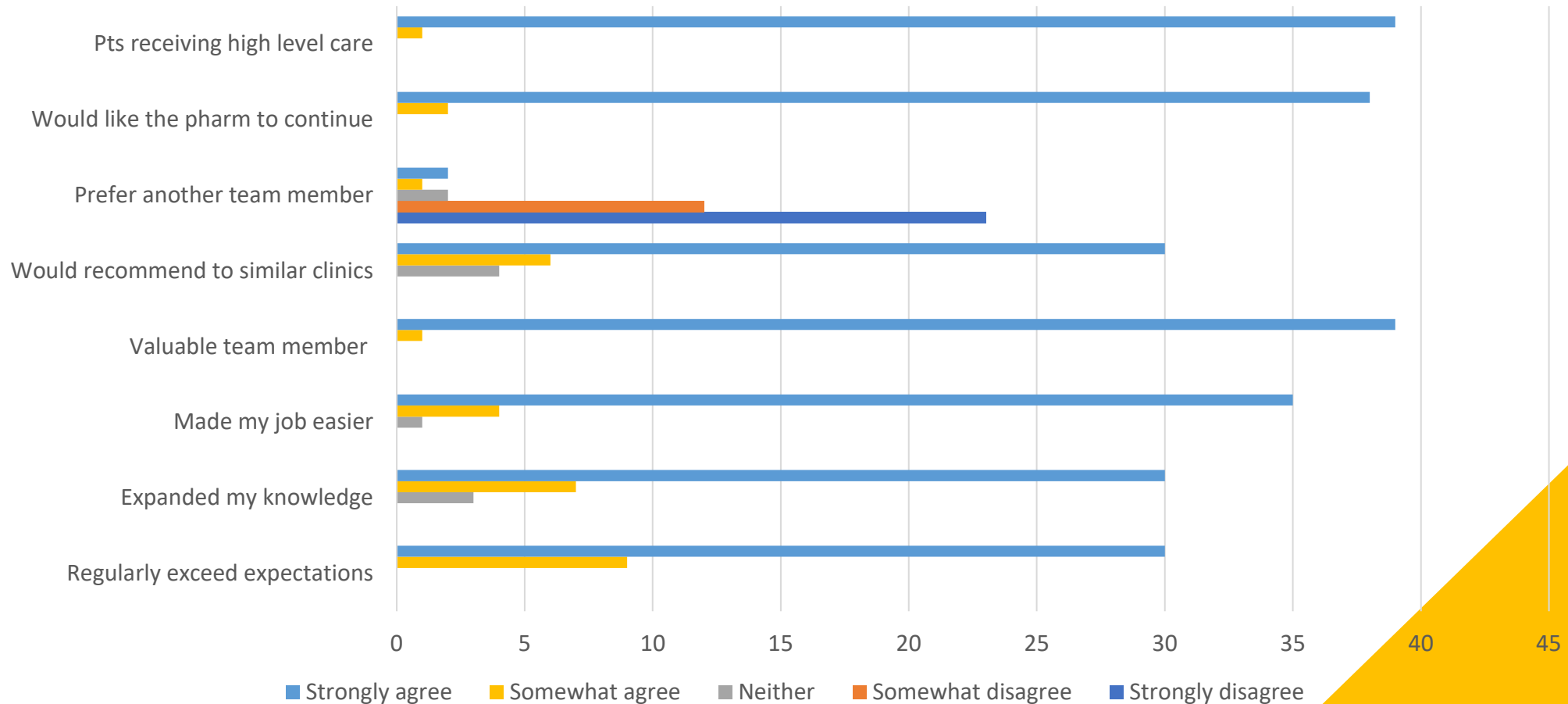
Patient Experience

- “The pharmacist was kind and knew everything we needed to know. We are always grateful for the hard truths. She covered those with professional grace. Thank you.”
- “The pharmacist was fantastic! I seriously consider this time with her extremely helpful!”
- “The pharmacist was very thorough and also very receptive to my many questions which is important to me. She also followed up on an additional question I emailed her a little later in the day. I feel the opportunity to speak with her was very helpful as I begin treatment with many possible side effects.”



Physician Experience Survey

Overall satisfaction across all items: 83% Strongly agree, 13% Somewhat agree, 3% neither, <1% disagree



N=40 (70% RR) Completed December 2022

Physician Experience

- “The pharmacist has made a huge impact on the quality and safety of oral chemotherapy in my patients.”
- “Clinical pharmacist is an excellent resource for me to find help to improve care.”
- “The clinical pharmacist is doing a great job. I can’t imagine caring for our patients without her help.”
- “More dedicated pharmacists. Replicate the model everywhere.”



Physician Experience

What has been most impactful to patient care regarding the pharmacist's work within your practice?

Having a pharmacist in our practice has allowed us to have the expertise needed for patients initiating complicated oral agents that often carry significant toxicities and drug interactions. Our RNs were not equipped to do this properly and the physician visits are not sufficient to cover what they patient need. The pharmacy support from many specialty pharmacies does not interact with the physician and has no further context for the pt care.

Are there areas of oncology patient care you believe are best suited for a pharmacist? If yes, what are they?

We chose to focus on oral chemotherapy in the outpt setting and this has been extremely valuable. We already had inpatient support- if we didn't, this would take priority.

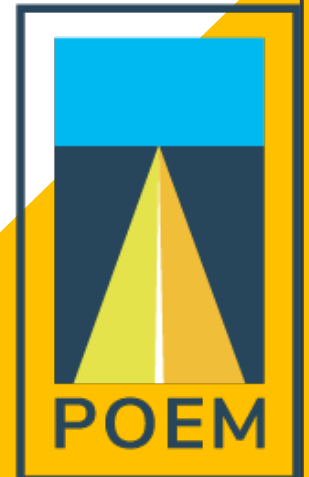
We also have her helping with comorbidity management as it relates to cancer treatment- eg Diabetes and HTN that worsen with treatment. This has been very helpful for all involved and the PCPs appreciate the support.

Kathleen Beekman, MD IHA Hematology/Oncology



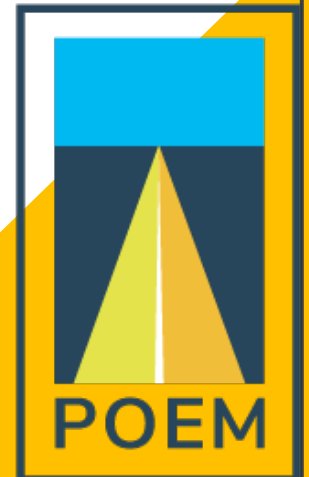
Fortuitous Outcomes

- Cancer Drug Repositories (CDRs)
 - Responds to challenges related to drug affordability, access and waste
 - 13 states currently allow cancer medication donation and redistribution, including Michigan
 - 3 POEM programs have initiated CDRs and have shared best practices, pearls, etc.
 - MyMichigan Cancer Center – Midland
 - Cowell Family Cancer Center, Munson – Traverse City, Cadillac, Gaylord, Grayling
 - The Cancer and Hematology Centers – Grand Rapids



CDR – Experience to Date

- Munson Healthcare (12/2021 – 6/2023)
 - 70 donations received, value = \$1,319,705.88
 - 16 patients been provided donated meds, value = \$165,798.39
- MyMichigan Health (11/2021 – 6/2023)
 - 58 donations received
 - 11 patients been provided donated meds, value = \$83,989.29
- The Cancer & Hematology Centers (1/2023 – 6/2023)
 - Total donations received, value = \$1,008,306.87
 - 3 patients have been provided donated meds, value = \$53,517.37
- Of the 3 sites
 - Over 150 medications collected in total ~18 month time period, equaling approximately **\$3 million** in medications not wasted
 - 30 prescriptions provided to patients in need



CDR – Statewide Effort

- Despite successes of individual programs, a need for support is evident
- MOQC, POEM, and current CDR sites in Michigan have worked together to determine next steps for a State-wide repository
- Goals –
 - Expand patient access to oral anticancer agents and supportive medications across the State
 - Make cancer drug donation more streamlined and feasible at sites that do not currently have repositories in place



CDR – Statewide Effort



- Non-profit*, State-wide Repository – YesRx
- Buy-in/interest from multiple organizations across the State
- Near term
 - Centralized database with coordination between current sites
 - Onboarding of new sites/practices
 - Evaluation of centralized medication inventory options
- Long term
 - Expansion across the State for anticancer meds
 - Expansion to non-cancer medications
- Contact – estunteb@umich.edu



In the meantime – CDR Donations

- For patients interested in donating
 - In all scenarios, the donor must complete a donation form and medication must meet requirements for donation
 - May donate at the 3 sites currently registered in the State
 - May donate to other available programs, for example www.safenetrx.org (Iowa)
 - Sites interested in collecting donations from patients
 - Can register with MI LARA to collect donations



In the meantime – CDR Prescribing

- For patients in need and not at one of the CDR sites
 - MyMichigan Health and The Cancer and Hematology Centers sites will fill a CDR prescription for a patient in need with a prescription from a non-site Michigan oncologist
 - Unable to ship prescriptions at this time, the patient will need to pick up at the site
 - Patient/recipient will sign the CDR cancer drug recipient record form at the site
- More to come **SOON** regarding opportunities across the State with YesRx



Conclusion

- Integration of pharmacists in oncology clinics has improved quality of care and resulted in high patient and physician satisfaction
- Outcomes expand beyond the site by partnering with the group, sharing best practices, and developing innovative models for helping patients – i.e. CDR efforts
- Please let us know if you're interested in participating or hearing more!



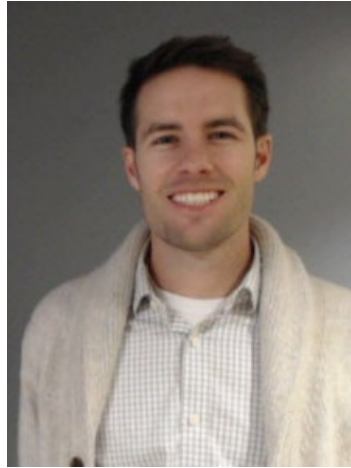
POEM Pharmacists



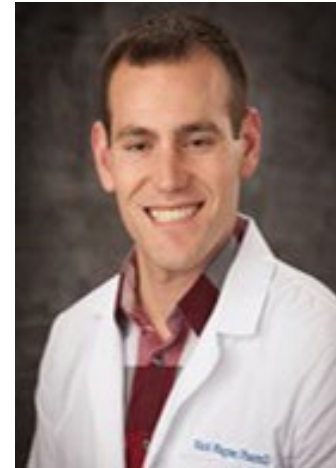
Jamie George, PharmD
*Henry Ford Health System
Macomb-Clinton Twnshp*



Katie Sias, PharmD, BCOP
*MyMichigan
Mt. Pleasant, Midland,
Alpena, Alma, Gladwin*



Colton Zwart, PharmD, BCOP
*Munson Healthcare
Traverse City, Cadillac,
Charlevoix, Gaylord, Grayling,
Manistee*



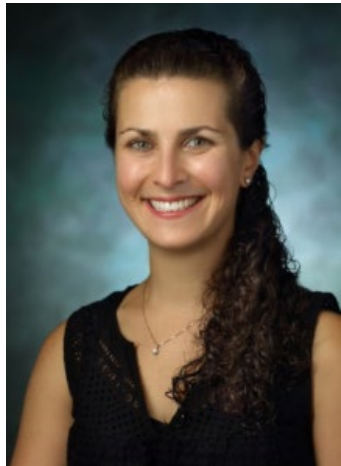
Mark Wagner, PharmD, BCOP
*Munson Healthcare
Traverse City, Cadillac,
Charlevoix, Gaylord, Grayling,
Manistee*

Sites with Pharmacists Starting Summer 2023!

*The Cancer and Hematology Centers
Grand Rapids, Holland, Norton Shores*

*Corewell Health
Grand Rapids*

*Covenant HealthCare
Saginaw*



**Olga Yankulina, PharmD,
BCOP**
*Henry Ford Health System
Novi*



**Emily Johengen, PharmD,
BCACP**
*IHA Hematology/Oncology
Ypsilanti, Brighton, Canton,
Chelsea, Livonia*

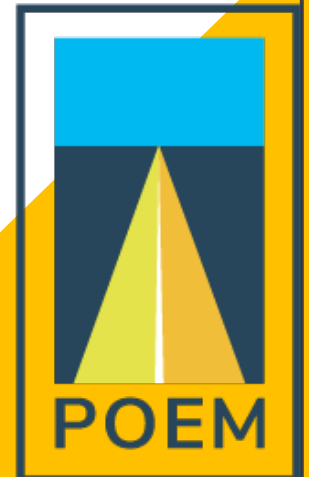


Jennifer VanSickler, PharmD
*Sparrow Herbert-Herman
Cancer Center
Lansing*

POEM Coordinating Center Team

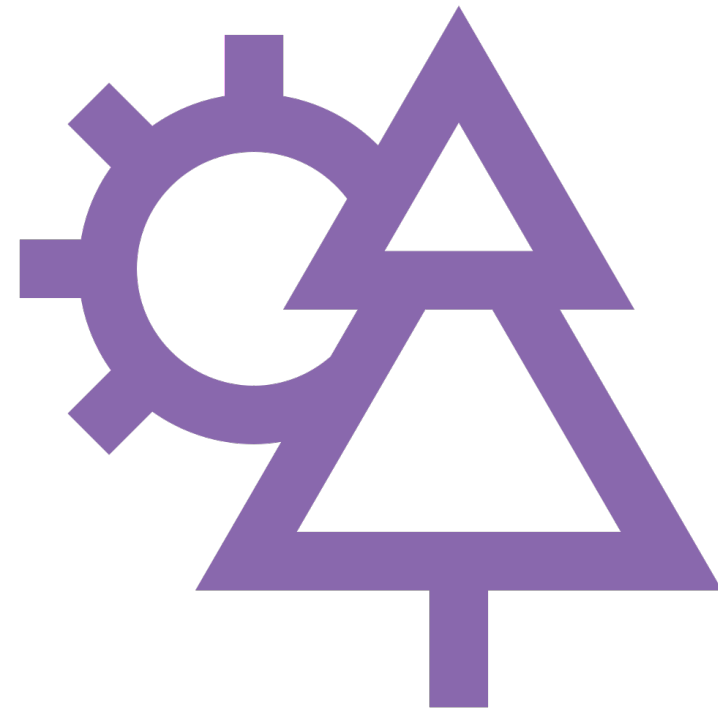


Mike Harrison
POQC Member
POEM Representative



Closing Items

Keli DeVries, LMSW



Continuing Education Credits

This meeting has been approved for 5.25 CEU

1. MOQC will send out the evaluation to everyone's email address as part of the follow-up email
2. Attendees should complete the evaluation
3. Attendees will receive a certificate from the CE accreditation organization with their credits
 - The certificate will be sent from ipceapps@umn.edu

Questions? Please reach out to moqc@moqc.org



Site Visits

- Schedule a site visit with MOQC
 - Review practice performance
 - Celebrate successes
 - Brainstorm ideas for performance improvement on specific measures
 - Review resources available
- In-person and virtual options are available



Next Meetings

MOQC GynOnc Biannual Meeting

GynOnc Biannual	Saturday, October 7 (Lansing)
-----------------	-------------------------------

MOQC 2023 Fall Regional Meetings

Superior West	Wednesday, October 11 (Marquette)
Superior East	Thursday, October 12 (Petoskey)
Metro East	Wednesday, October 25 (Troy)
Lake Michigan Oncology Region (LMOR)	Monday, October 30 (Lansing)
West of Woodward (WOW)	Wednesday, November 8 (Ypsilanti)
Central Michigan Group (CMG)	Monday, November 13 (Midland)

MOQC MedOnc Biannual Meeting

MedOnc Biannual	Friday, January 19 (virtual)
-----------------	------------------------------



360 Evaluation

MOQC has great value for oncology in Michigan in bringing together practices across the state, sharing data across the country, as well as presenting the patient care perspective in oncology treatments, palliative care and comfort care.

Physician

MOQC lives up to its mission - improvement of quality of care for patients. The intent is genuine. MOQC listens to the participating practices and offers valuable content and resources to achieve improvement in quality.

Physician

I enjoy collaborating with other practices to look at best workflows. I appreciate MOQC's focus on equity and how we can all make sure patients receive high quality care.

Practice Manager

MOQC's biggest strength is the presentation of data from all practices. It is helpful being able to compare how we are doing and find areas of improvements.

Pharmacist

I appreciate the care and focus that MOQC provides to patients and caregivers. MOQC holds physicians and practices to a higher standard for patient care.

POQC Member



THANK YOU!





MICHIGAN ONCOLOGY
QUALITY CONSORTIUM

Cancer care. Patients first.
The best care. Everywhere.