

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

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[moqc.org/poem](http://moqc.org/poem)

# 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



# 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



# POEM Support

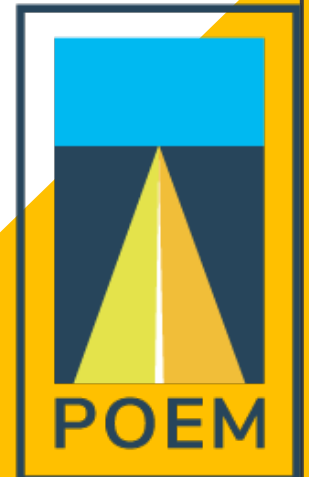
## Pharmacist:

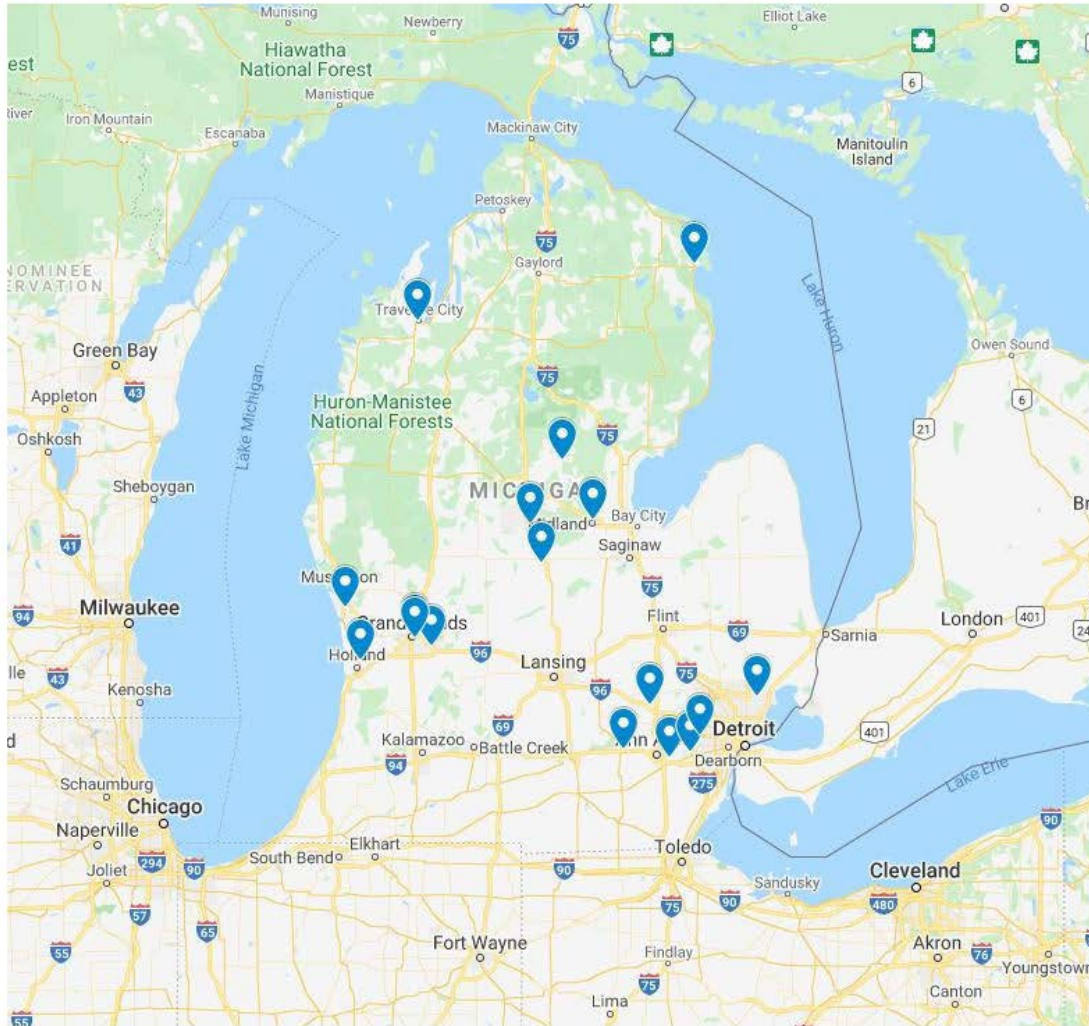
- Billing support/guidance
- CPA\* support/guidance
- Weekly touch bases and peer collaboration
- Patient advocate involvement
- Data analysis
- Oncology-based education
- Outcome dissemination
- Icebreakers!

## Practice/Physician Organization:

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

\*CPA = Collaborative Practice Agreement





Launched October 2020

- 6 Clinical Oncology Pharmacists
  - 8 Physician Organizations
  - 24 Oncology Sites
  - 72 Physicians
- 
- 1424 Patients\*
  - 2893 Encounters
  - 3065 Interventions

\*Data up to 12/31/21



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# Cohort 1

Pharmacist Clinical Focus	Start Date	1 <sup>st</sup> 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 <sup>st</sup> RedCap Encounter	CPA Approval Date	Care Mngmt Billing before POEM	Care Mngmt Billing post POEM
KS OAs	3/8/21	4/21/21	4/2021	No	Yes
MW Symptoms/PROs	7/5/21	7/26/21	8/2021	No	Yes
JG OAs	8/30/21	10/21/21	Pending	Yes	Yes
OY OAs	10/5/21	NA	Pending	Yes	Yes

\*CPA = Collaborative Practice Agreement





# IHA Integration Experience

Successes	Early barriers	Emerging challenges
<p>Practice had identified area of greatest need prior to hire</p> <p>Precedent with embedded pharmacists in primary care</p> <p>Approval of collaborative practice agreement within first two months</p>	<p>Referrals for symptom and comorbidity management were slow to start</p> <p>Understanding role of a clinic-based pharmacist</p> <p>Lack of embedded specialty pharmacy</p>	<p>Scope creep – ensuring pharmacist focus stays clinical despite staffing issues</p>



# CHCWM Integration Experience

Successes	Early barriers	Emerging challenges
<p>Relationships with providers/leaders at practice were already established</p> <p>Development of enhanced education materials for patients</p> <p>Launch of Immunotherapy Subspecialty Team</p> <p>Enhanced understanding of CM billing opportunities</p>	<p>Full integration into existing workflows</p> <p>Ensuring minimal duplication of information to patient</p> <p>ICI patient volumes</p> <p>Minimal experience with collaborative practice agreements</p>	<p>Ensuring maximum benefit of the pharmacist's time with patients</p> <p>ICI patient volumes</p>



# Comparing experiences

Emily - IHA	Christin - CHCWM
New to organization	Employed at organization 3 years prior to POEM
Already using CM billing codes	No prior utilization of CM billing codes



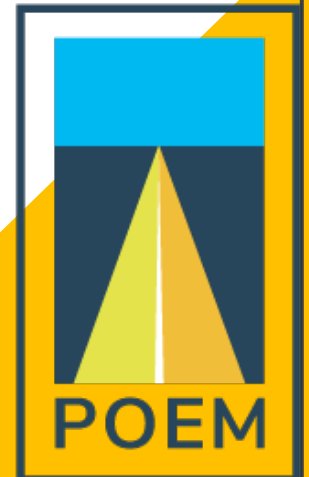
# Most Common Medication Interventions

- Optimizing antiemetic use
- Constipation management
  - Antiemetic side effect
  - Opioid use and no prophylaxis
- Gastrointestinal symptom management – diarrhea and nausea



# Case Example 1 – Acalabrutinib

- Patient contacted 1 month s/p acalabrutinib start for follow-up.
- Deemed high-risk by the POEM pharmacist: >80 years old, on multiple agents with bleeding risk (warfarin, Excedrin), CLL with moderate TLS risk
- Seemed disorganized at time of call and stated he just moved. Couldn't find his allopurinol and had been off x 2 weeks. No labs check in those 2 weeks. Also mentioned he accidentally filled his pill box with a whole tab of warfarin instead of ½ tab. Thought he was taking this higher dose for 10 days. Reported large black bruises all over his skin and a large lump in his groin.
- POEM pharmacist referred him to the clinic immediately with CBC, INR, CMP + uric acid ordered
  - INR = 12, Hgb down 3 points since last check
  - Communicated with team and scheduled for urgent office visit and Vitamin K
  - Outpatient INR checks every other day until <3
  - Communication with PCP who manages warfarin
  - Attempt to convert to DOAC (not feasible given insurance)
  - Home INR monitoring



# Case Example 2 – Alpelisib

- POEM pharmacist provided OAA education for alpelisib
- At education session, identified patient's history of pre-diabetes. Started patient on metformin ER 500 mg daily given the incidence of alpelisib-induced hyperglycemia
- POEM pharmacist follow-up:
  - 1 week: FBG 198. Increased metformin ER to 1000 mg daily
  - 2 week: FBG 473 (Grade 3). Held alpelisib, administered 1 L IV NS, started empagliflozin, additional patient education provided
  - S/P 1 dose of empagliflozin: rapid decrease in blood glucose levels. Patient held.
  - Day 5 after alpelisib hold: FBG 132. Re-initiated at lower dose slow titration based on tolerance.
  - Ongoing patient education including home blood glucose monitoring.



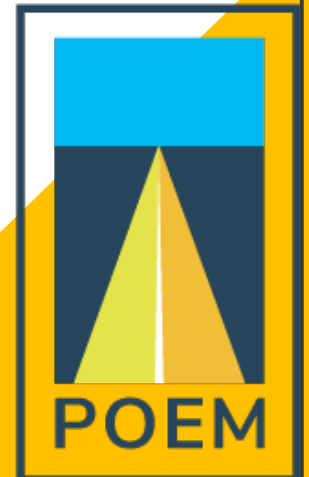
# Case Example 3 – Pembrolizumab/Axitinib

- Patient contacted by POEM pharmacist 10 days after initiation of pembrolizumab and axitinib
- Patient and spouse reported the following symptoms:
  - Increase from 1 regular to 3 loose bowel movements daily, elevated heart rate, increasing shortness of breath
- Pharmacist discussed findings with provider and referral made to same-day clinic (SDC)
- SDC assessment determined that the increase in bowel movements was not likely related to pembrolizumab treatment; however, laboratory testing revealed proteinuria
  - Due to proteinuria, axitinib held
  - Axitinib restarted once urine protein normalized
  - Shortness of breath and elevated heart rate returned to patient's baseline within 1 week
- Proteinuria was discovered earlier due to targeted pharmacist follow up and referral to SDC for evaluation of symptoms



# Case Example 4 – Incidental DDI Finding

- POEM pharmacist provided immune checkpoint inhibitor education for durvalumab, including full medication reconciliation
  - Noted that patient was prescribed allopurinol; patient had warfarin listed as home medication
    - Drug-drug interaction (DDI) exists; potential for enhanced anticoagulant effects
    - POEM pharmacist notified providers of DDI
- POEM pharmacist contacted primary care office and anticoagulation clinic to inform providers of DDI and potential need for warfarin dose adjustment / increased monitoring
  - Also informed anticoagulation clinic that anticipated duration of allopurinol therapy was only 2 months, therefore close monitoring was warranted
- Patient's next INR within 7 days of allopurinol initiation = 8
  - Anticoagulation clinic notified and further managed dose holds and warfarin restart





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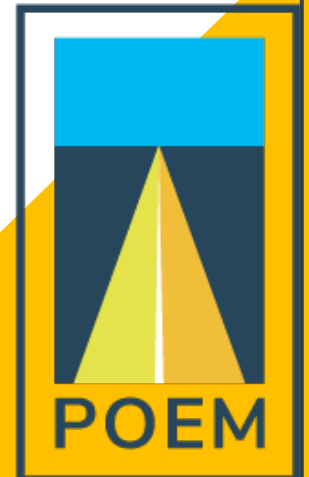


Review outcomes of the POEM program



# Outcome Assessment

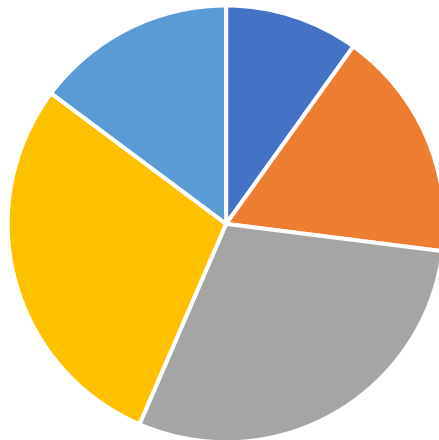
- Pharmacist report – RedCap
  - Patient demographics
  - Encounters
  - Interventions
- Patient satisfaction
- Care management billing optimization
- Site-specific metrics and outcomes
- Reimbursement for services and program participation



# Data – Demographics

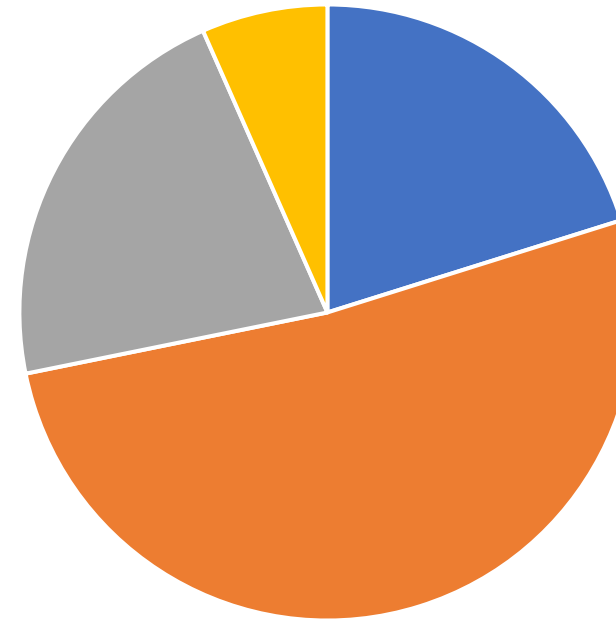
- Female: 49.6%
- White: 93%, Black: 5%

Age



■ Under 50 ■ 50-59 ■ 60-69 ■ 70-79 ■ Over 80

Reason for Enrollment

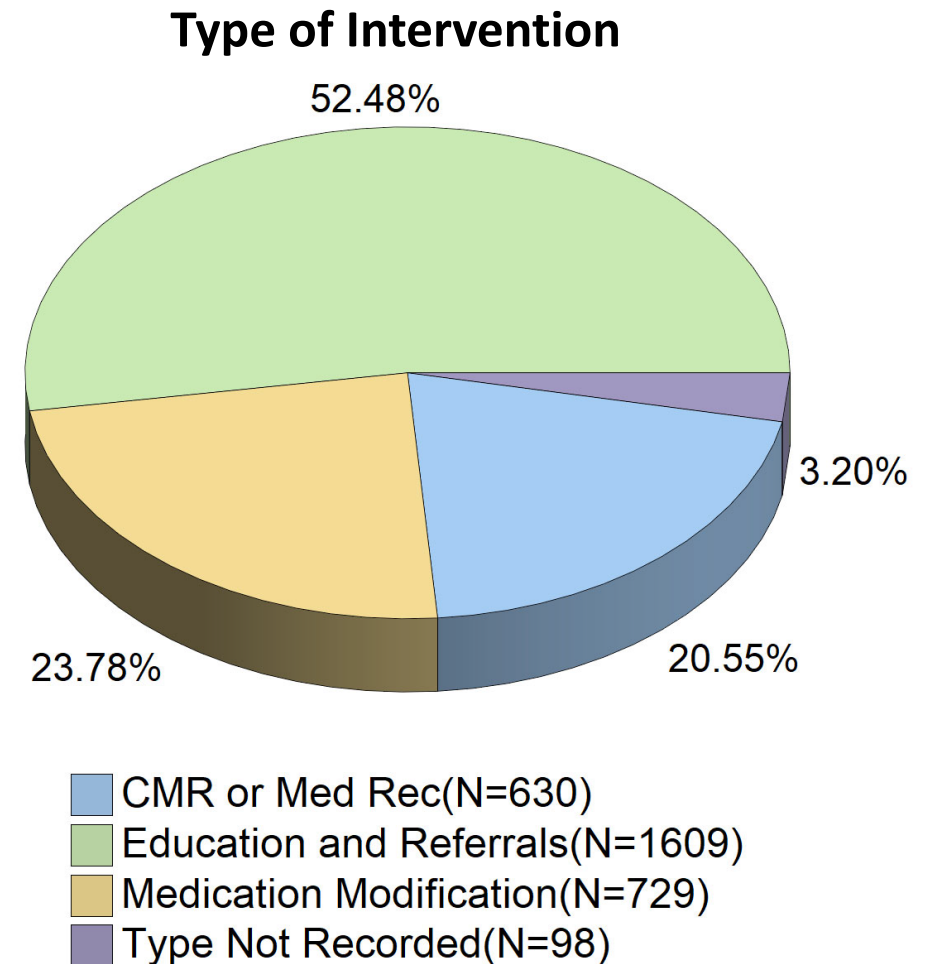


■ Immunotherapy ■ Oral Anticancer Tx ■ Non-Immunotherapy IV ■ Other

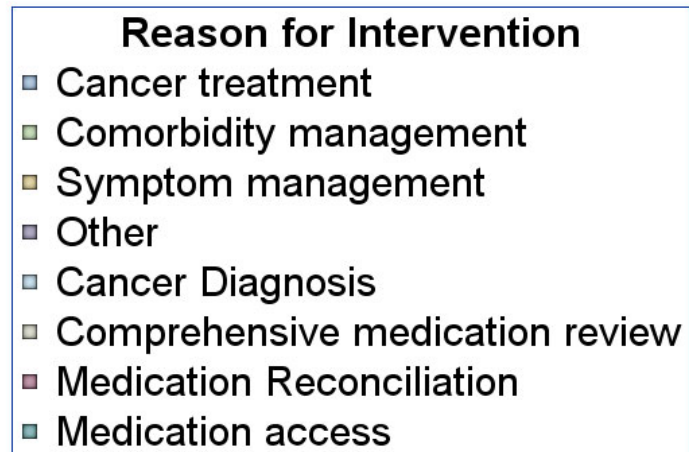
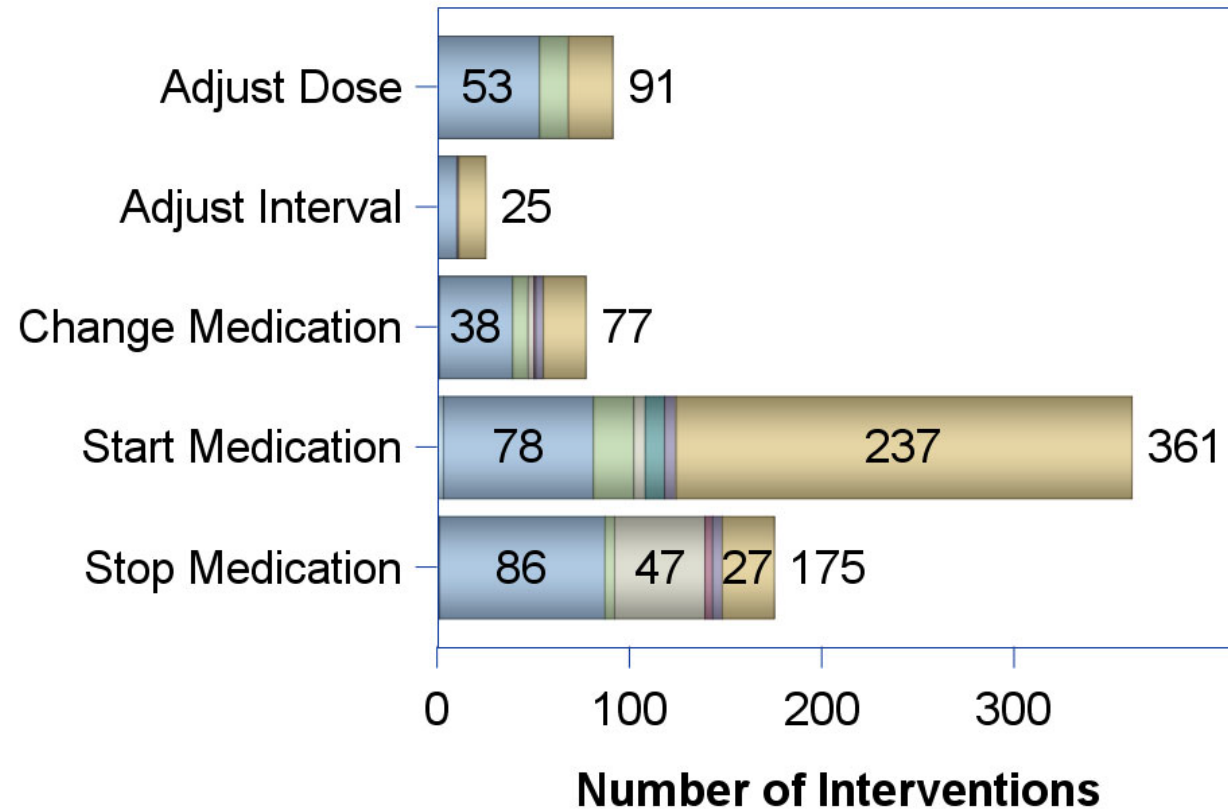


# Data – Outcomes

- Encounters per week
  - 56 over the last year
  - 82 over the past quarter
- 55% of encounters billed a care management code
- Interventions per week
  - 59 over the last year
  - 88 over the past quarter



# Data – Medication Modifications



# Patient Experience Survey

1. It is **important** for a patient beginning cancer treatment to meet with a clinical pharmacist. **98% strongly/somewhat agree**
2. After speaking with the clinic pharmacist, I feel more **knowledgeable** about my cancer treatment. **98% strongly/somewhat agree**
3. After speaking with the clinic pharmacist, I feel more **confident** about what to do if I have a side effect from my cancer treatment. **100% strongly/somewhat agree**
4. Overall, I am **satisfied** with the care provided to me by the clinic pharmacist. **100% strongly/somewhat agree**

N=61



# 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!”



# Oncologist 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*



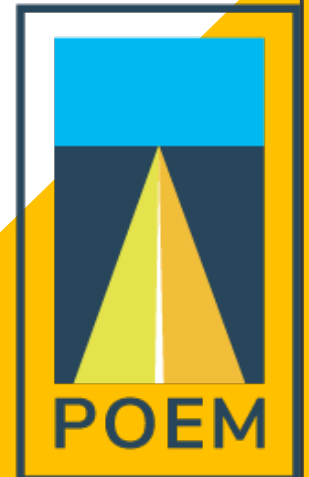
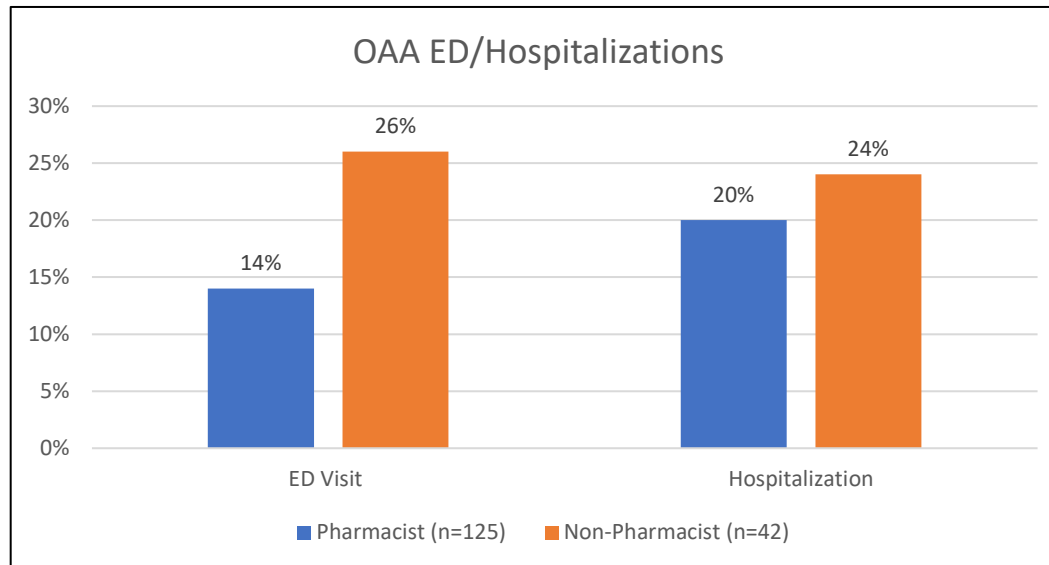


# Site Specific Data – OAAs

OAA follow-up within practice goal of 10 days pre- vs post-intervention

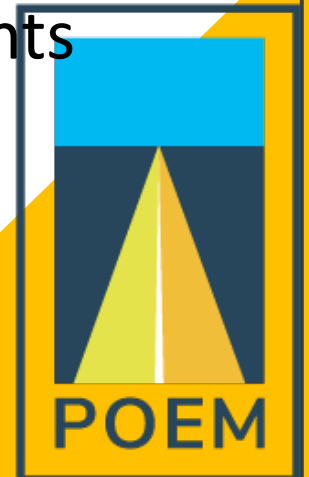
	New Starts	Follow up within 10 days, n (%)	Follow up within 14 days, n (%)	Median time to follow up, days (range)
Pre-intervention	80	51 (63.8)	66 (82.5)	8 (2 to 31)
Post-intervention	120	115 (95.8)	119 (99.2)	7 (2 to 15)
p-value		<0.001	<0.001	<0.001

OAA Healthcare Utilization



# Dissemination

- Multiple CE talks for the State via MICMT and MOQC
- American Society of Clinical Oncology (ASCO) Quality Care Symposium Poster – Fall 2021
- MOQC Annual Meeting Presentation – January 2022
- Hematology/Oncology Pharmacy Association (HOPA) Annual Conference Presentation on Collaborative Practice Agreements – April 2022
- Case series on alpelisib, HOPA Annual Conference Abstract – April 2022



# Upcoming Webinars

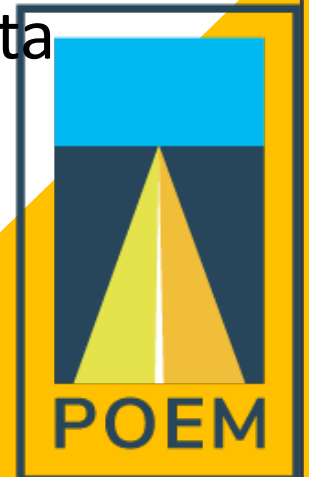


- **Registration** and additional details visit: <https://micmt-cares.org/events>, all sessions from 12-1 p.m.
- **February 24, 2022: Strategies for Medication Management, Adherence Assessments and Consulting a Pharmacist**
  - **Presenter: *Christin Molnar, PharmD – Cancer & Hematology Centers of Western Michigan***
  - Tools to improve skills of obtaining accurate medication lists, interviewing patients to assess medication adherence, and knowledge of community resources that could be utilized to assist higher complexity patients.
- **March 24, 2022: Basics of Oncology Medications**
  - **Presenter: *Mark Wagner, Pharm D – Munson Health Care***
  - Summarize some common side effects and management of side effects with some of the more common oncology medications. Expand the knowledge of healthcare providers not practicing directly in oncology to improve the ability to care for patients undergoing cancer treatment.
- **April 21, 2022: The Impact of Cancer Treatment on Patients Comorbidities**
  - **Presenter: *Katie Sias, Pharm D – MyMichigan Health Care***
  - Focus on some common comorbidities in patients with cancer, along with management techniques. Helpful for oncology and primary care teams caring for the patients.



# Conclusion

- Early data from our pilot year indicates positive patient experiences, multiple education sessions, and medication interventions to improve symptoms and treatment-related side effects.
- Our first site-specific analysis also indicates an improvement in time to patient follow-up with final health care utilization data pending.
- We continue to recruit practices for participation with availability for 6 practices in 2022 and 4-6 practices in 2023.



# POEM Pharmacists



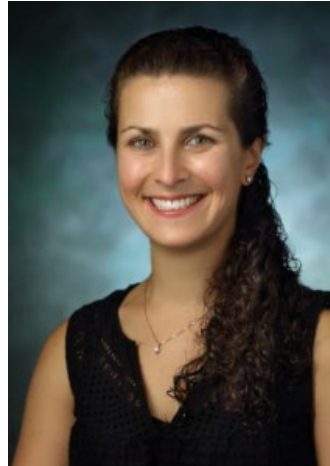
**Jamie George, PharmD**  
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**Emily Johengen, PharmD,  
BCACP**  
*IHA Hematology/Oncology  
Ypsilanti, Brighton, Canton,  
Chelsea, Livonia*



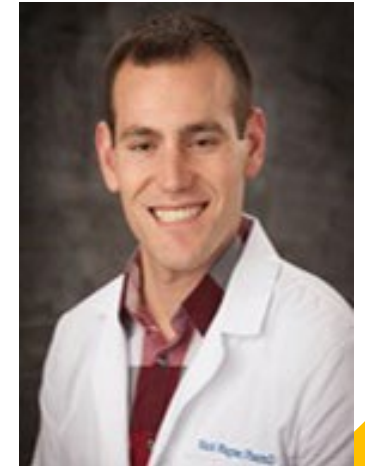
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Grand Rapids, Holland, Norton  
Shores*



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



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



**Mark Wagner, PharmD,  
BCOP**  
*Munson Healthcare  
Traverse City*



# POEM Coordinating Center Team



**Mike Harrison**  
POQC Member  
POEM Representative



# Interested in Participation or Learning More?

Contact: Emily Mackler, PharmD, BCOP

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