

MICHIGAN MEDICINE

# CANCER REHABILITATION PROGRAM

DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION

## Introduction

The Cancer Rehabilitation newsletter brings you information on team efforts within our department. Here are the updates on program highlights, achievements, collaboration, publications, and research.

## Leadership & Scope

The Cancer Rehab Program at Michigan Medicine is made possible by the contributions of many staff and faculty. Its services include inpatient rehabilitation, inpatient acute care, and outpatient. Patients with a history of any cancer, at any stage, are seen to manage the effects of cancer or cancer treatment.

This newsletter is dedicated to the memory of Kathy Konosky, OT, whose tireless efforts and passion helped launch the program. None of this would be possible without her. Although Kathy passed away three years ago, her presence and leadership is still felt in the care delivered by the team members she worked with, and those that followed.

## Mission Statement

*"Michigan Medicine Physical Medicine and Rehabilitation Department strives to provide quality cancer rehabilitation from time of diagnosis to end of life as symptoms develop due to disease process or treatment effects (immediate effects, long term effects, and late effects)."*



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# A MESSAGE FROM DR. SMITH

This year, the Cancer Rehabilitation program, like every other health service, was faced with unprecedented challenges due to the ongoing COVID-19 pandemic. As many patients treated in the program were at high-risk for severe complications should they contract the SARS-CoV-2 virus, even more caution and personalization of treatment were required than normal. Fortunately, the program's staff and faculty, working in concert with PM&R and Rogel Cancer Center leadership, were up to the task.

As the pandemic surged in Spring 2020 and services were temporarily shuttered, cancer patients were among the last patients on the inpatient rehabilitation service. With careful consideration of patient safety and modified goals to expedite discharge home, the inpatient rehabilitation staff and faculty were able to efficiently discharge patients before the unit had to be closed down to accommodate patients with COVID-19.

What followed was a testament to the strength of the Cancer Rehabilitation program. Even though clinical services were reduced, the program's presence was felt hospital-wide during the Spring surge. Led by Chris Magnant, DPT, the hospital adapted the "MCORE approach" to patient care by rapidly and aggressively mobilizing COVID-19 patients with skilled physical and occupational therapy to reduce disablement and improve throughput. This approach appears to be distinct from many other hospital systems, meaning that Michigan Medicine patients admitted for COVID-19 likely received more rehabilitation care than those at other institutions. Additionally, the field hospital manual, which will be used in any future Michigan Medicine field hospital setting, includes a comprehensive and efficient triage mechanism to provide rehabilitation care to patients with the most pressing needs.

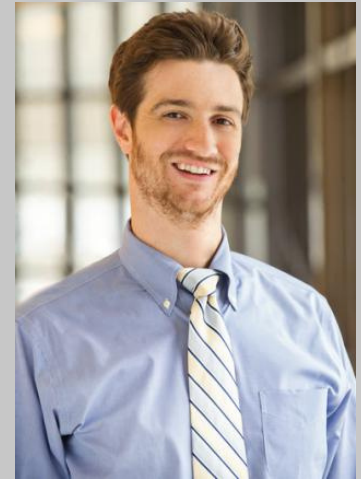
Of course, during the pandemic, the MCORE team operated as much as they could for non-COVID-19 cancer patients, triaging them to external rehabilitation facilities when needed.

On the outpatient front, virtual visits quickly became the standard of care, and continue to be popular amongst patients as numbers spike again. Acting quickly, the PM&R physicians immediately began evaluating aspects of virtual care from both a patient and provider perspective. The data showed that both patients and providers were satisfied with the services, regardless of patient age, which doctor they saw, or their diagnosis. The manuscript reporting these results is currently under review after revisions were submitted, and publication is anticipated in late 2020 or early 2021.

Other services adapted to virtual care as well. Physical and occupational therapists were able to provide guidance for patients remotely, despite the inherent challenges of remote therapy. Rehabilitation Psychology/Neuropsychology care went virtual quickly and was able to help patients struggling with chronic issues, as well as acute stressors related to the pandemic. Virtual care continues to-date, and remains popular and essential for patients who are higher-risk of serious complications from the virus.

The members of the Cancer Rehabilitation program have served admirably during the pandemic, and I am incredibly proud of everyone. The numbers are increasing as I type this but I am certain that our team will rise to meet whatever challenges await, and provide the best possible care for our patients. When the country emerges from the pandemic, I am confident that our program will continue to be lead regionally and nationally in the rehabilitation of people with a history of cancer.

*Sean Smith*



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# CLINICAL INNOVATIONS

DESPITE THE CHALLENGES ASSOCIATED WITH THE COVID-19 PANDEMIC, THE CANCER REHABILITATION PROGRAM WAS ABLE TO IMPROVE PATIENT CARE AND EXPAND THE SCOPE OF THE PROGRAM.

**IMPACT The Brain:** This is a multidisciplinary effort to improve the coordination of care for and reduce symptom burden of women diagnosed with breast cancer metastatic to the brain. Led by **Aki Morikawa MD** (Medical Oncology), this program features **Nicolette Gabel PhD and Sean Smith MD**, as well as providers in Radiation Oncology, Neurosurgery, NeuroOncology, Palliative Care, and Genetics. Support for this program was provided by a grant from the National Comprehensive Cancer Network and Pfizer.

**SOZO:** The lymphedema program continues to innovate, and now utilizes bioimpedance spectroscopy with a state-of-the-art SOZO machine. This measures tissue fluid concentration to evaluate for the presence of lymphedema in a limb, and a change in the degree of lymphedema in patients receiving treatment. This brief, non-invasive test is covered by Medicare and will both reduce healthcare costs and improve care of patients with lymphedema, including Stage 0 (not clinically detectable).

**CRCI clinic:** Led by **Drs. Nicolette Gabel and Sean Smith**, a clinic focusing on cancer-related cognitive impairment (CRCI) - colloquially referred to as "Chemobrain" - is slated to enroll its first patients in late 2020/early 2021. After delays related to IRB amendments and the pandemic, this clinic will evaluate and treat survivors reporting cognitive impairment in two primary ways. First, a thorough evaluation of their neuropsychological status and factors that influence mood and cognition - sleep, stress, pain, medications, and more - will be performed. Second, patients will be enrolled in group classes emphasizing education about their condition and contributing factors to improve self-management of their impairments and enhance their understanding. The group classes will be virtual until such time that in-person sessions are safe.

**M-GRACE:** The inpatient cancer rehabilitation teams, which include the M-CORE acute care team and the inpatient rehabilitation team housed on 6A, brought patients in for short, focused, palliative rehabilitation admissions that emphasized family training and goal setting in advanced cancer. This program has been named the Michigan Goal-oriented Rehabilitation And Caregiver Education (M-GRACE) program. While its growth has been stymied by the COVID-19 pandemic, we hope to enroll more patients as capacity for visitors and beds on the University Hospital's Inpatient Rehabilitation Unit improve.

## UOFMHEALTH BLOG HIGHLIGHTS PARTNERSHIP BETWEEN PM&R AND GYNECOLOGIC ONCOLOGY

Featured in the discussion is an interview with **Dr. Cody Andrews**. The article was inspired by a study concerning aromatase inhibitors, co-authored by PM&R Chief Resident and future cancer rehabilitation superstar, **Dr. Brendan McNeish**.

**READ IT HERE!**

### ANOTHER UOFMHEALTH BLOG POST!

*5 Reasons Rehabilitation Care is Important After Breast Cancer*

**CLICK HERE**

for the interview with  
**Dr. Sean Smith**

# EDUCATION

This year, the Cancer Rehabilitation program moved forward with its many initiatives to improve cancer rehabilitation education. The scope is multi-faceted and includes physician and occupational therapy fellowship programs, as well as additional education for current staff and faculty looking to expand their knowledge base. On top of that, members of the team sought out additional external education and certifications.

2019-2020 saw the first occupational therapy Cancer Rehabilitation/Lymphedema fellow graduate (**Monique Alofs**) and the second physician complete a Cancer Rehabilitation Medicine fellowship (**Philip Chang**).

Learning modules to train physical and occupational therapy staff about issues specific to cancer patients continue, and each satellite Michigan Medicine clinic featuring PT and OT have a site lead for cancer rehabilitation.

Unfortunately, the University of Michigan-Ohio State University annual cancer rehabilitation conference had to be postponed due to the pandemic. It will now take place in April 2021, with the focus still on pediatric cancer rehabilitation.



**Cancer Rehab Fellow, Dr. James Pastrnak  
and his better half, Sara Pastrnak**

# HIGHLIGHTS

**Monique Alofs, OT**, our first Cancer Rehab/Lymphedema fellow, completed her fellowship year and joined the University of Michigan lymphedema program to practice at the Burlington site.

**Philip Chang, DO** completed his Cancer Rehabilitation Medicine fellowship and joined the faculty at Cedars-Sinai in Los Angeles, CA.

**James Pastrnak, MD** is the current Cancer Rehabilitation Medicine fellow and will join the faculty of the Indiana University Department of Physical Medicine and Rehabilitation in July 2021 to start a Cancer Rehabilitation program.

*Note: he will still root for Purdue in all sports, for reasons not well understood by the program's faculty.*

**Theresa Courter, OT** is now certified as a cancer exercise training specialist by CETI (Cancer Exercise Training Institute).

**Christelle David, OT** completed PORi (Physiological Oncology Rehabilitation Institute) certification as a Certified Oncology Rehabilitation Therapist.

**Sean Smith, MD** is part of the Association of Academic Physiatrist (AAP) committee to improve palliative care education for PM&R residents, including establishing milestones for clinical competency.

**Sean Smith, MD** served on the American Society of Clinical Oncology (ASCO) Education Committee for the Symptoms and Survivorship track, which planned educational content for the annual ASCO meeting to take place in 2021. With his input, rehabilitation will be one of the highlights of the track, and he will participate in a panel discussion at the annual meeting about goal setting in cancer symptom management.



**Monica Hubbert, OT** and other members of the lymphedema program, as well as **Theodore Kung, MD** in Plastic Surgery, helped found a Michigan chapter of **LE&RN (Lymphedema Education and Research Network)**. This advocates for better patient care (i.e. insurance coverage of necessary services and compression garments) and strives to improve provider and patient education about lymphedema. One expressed goal of this initiative is for the University of Michigan to become a LE&RN Center of Excellence for lymphatic surgeries. Interested in participating? Email **Katie Rogers, OT** at [kathroge@med.umich.edu](mailto:kathroge@med.umich.edu)

Members of the cancer rehabilitation team participated in the **Pink Challenge** to raise awareness for breast cancer. Julie Agbabian, ACCO of the Rogel Cancer Center, judged the contest and deemed the Burlington Lower Level as the winner. *Please see the delightful pictures!*

The Kathy Konosky Fund, which finances cancer rehabilitation education for therapy team members, was the department's featured fund on Giving Blue Day last year. Last year, over \$2000 was raised, and the fund had the fifth most donors across the **ENTIRE** university (not just Michigan Medicine!)

- To donate, please visit: <http://www.giving.umich.edu/give/331776>

# ADVOCACY AND COMMUNITY INVOLVEMENT



# RESEARCH AND SCHOLARLY ACTIVITY

As with past years, the Cancer Rehabilitation program continues to be academically productive and is recognized as a leading program regionally and nationally. Below are journal publications and presentations produced during the 2020 calendar year. With numerous other publications under review, and grant applications submitted, continued excellence in this area is expected in 2021 and beyond.

## PEER-REVIEWED JOURNAL MANUSCRIPTS

Charles Shapiro MD, Catherine Van Poznak MD, Christina Lacchetti MHS, Jeffrey Kirshner MD, Richard Eastell MD, Robert Gagel MD, **Sean Smith MD**, Beatrice J Edwards MD MPH, Elizabeth Frank EdM, Gary H Lyman MD MPH, Matthew R Smith MD PhD, Rahul Mhaskar PhD MPH, Tara Henderson MD MPH, Joan Neuner MD MPH: *Management of Osteoporosis in Survivors of Adult Cancers With Nonmetastatic Disease: ASCO Clinical Practice Guideline* J. Clin. Oncol 15(12): 665-669, 2019

**Sean R Smith MD**, Jasmine Y Zheng MD, Julie Silver MD, **Andrew J Haig MD**, Andrea Cheville MD: *Cancer rehabilitation as an essential component of quality care and survivorship from an international perspective*. Disabil Rehabil 42(1): 8-13, 2020

Michelle E Brassil MD, Andrea Cheville MD, Jasmine Y Zheng MD, **Sean R Smith MD**, Dorothy W Tolchin MD EdM, Sarah Wittry DO, Christopher Jones MD MBA, Betty Chernack MD: *Top Ten Tips Palliative Care Clinicians Should Know About Physical Medicine and Rehabilitation* J. Palliat. Med 23(1): 129-135, 2020

**Cody Andrews MD**, Geoffrey Siegel MD, **Sean R Smith MD**: *Rehabilitation to improve the function and quality of life of soft tissue and bony sarcoma patients* Patient Relat Outcome Meas 10: 417-425, 2020. PMC6997412

**Brendan McNeish MD**, Alexander R. Zheutlin MD, **James K Richardson MD**, **Sean R Smith MD**: *Primary cancer location predicts predominant level of brachial plexopathy*. Muscle Nerve 62(3): 386-389, 2020. 32511769

## TEXTBOOK CHAPTERS

**Michael Fediw MD**, **Sean R Smith MD**: *Cancer of the Urinary Tract and Genital Organs: Female and Male*. Cancer Rehabilitation: A Concise and Portable Pocket Guide, Jennifer Baima MD, Ashish Khanna MD Springer Nature, 2020. First, 5, 69-84

Andrea Cheville MD, **Sean R Smith MD**, Toure Barksdale MD, Arash Asher MD: *Cancer Rehabilitation*. Braddom's Physical Medicine and Rehabilitation, David X Cifu MD Elsevier, 2020. 6, 29, 586-593

Andrea Cheville, Jennifer Baima, **Philip Chang**, Charles Mitchell, Stephanie Otto, Sonal Oza, David S. Zucker: *Policy and Reimbursement Considerations for Exercise Programming in Cancer*. Exercise Oncology: Prescribing Physical Activity Before and After a Cancer Diagnosis, Kathryn H. Schmitz, Springer, 2020.

Multiple chapters have been written and submitted for future publication in *Oncology Rehabilitation: A Comprehensive Guidebook for Clinicians*.

## PRESENTATIONS

"Staying Healthy During the COVID-19 Pandemic: Lifestyle Modifications to Reduce Symptom Severity," APTA Oncology Section (**Mary Roberts**)

"Occurrence of COVID-19 Symptoms After Chemotherapy: A Case Study," MiPTA Association Fall Conference (**Gomati Kanphade**)

"Lymphedema Home Management in Your Practice Environment," MiOTA Fall Conference (**Monica Hubbert, Monique Alofs**)

"Pelvic cancers and pelvic floor rehabilitation," Oakland University's Post-Graduate Certificate in Oncology Rehabilitation, November 2019 (**Allegra Adams**)

"Family Training in Inpatient Rehabilitation," Michigan Medicine Department of Physical Medicine and Rehabilitation Grand Rounds, April 2020 (**James Pastrnak**)

"Best Papers in Cancer Rehabilitation," American Academy of Physical Medicine and Rehabilitation, October 2020 (**Sean Smith**)

"Personalized Rehabilitation in Primary CNS Tumors: Implications of Genetic, Pathological, and Oncology Treatment Characteristics," Michigan Medicine Department of Physical Medicine and Rehabilitation Grand Rounds, February 2020 (**Sean Smith**)

## ONGOING RESEARCH AND GRANTS

Personalized Multi-Care: A tailored approach to multidisciplinary care coordination delivery for metastatic breast cancer patients with central nervous system metastases. Pfizer, Inc. through a consortium with National Comprehensive Cancer- 20-PAF00353 (PI: Aki Morikawa; Co-Is include Drs. Gabel and Smith)

- This grant funds the coordination of clinical care for patients with breast cancer metastatic to the brain.

Surgical treatment of post-surgical mastectomy pain utilizing the regenerative peripheral nerve interface (RPNI) R21 CA234760-02: (PI: David Brown; Dr. Smith is a co-I)

- Evaluates the effectiveness of a surgical intervention to treat neuroma-mediated post-mastectomy pain.

Validating an Outcomes Metric for Cancer Rehabilitation Patients Through Multi-Center Collaboration Foundation for Phy Med & Rehab- 17-PAF06784 (PI: Sean Smith)

- This funded the development of a PROMIS-based outpatient assessment of function in patients with a history of cancer; the first manuscripts describing the validation of this assessment tool are in review.

Risk Prediction, Perceptions, Circumstances, and Consequences of Falls in Older Cancer Survivors. HUM00130246 (PI: Geeta Peethambaran)

- This qualitative study seeks to understand beliefs and attitudes of older adult cancer survivors with regards to their risk of falling.

Analysis of Lymphedema in Head & Neck Patients HUM00176639 (PI: Jennifer Shah; Christelle David is a co-I)

- This study aims to quantify risks of developing lymphedema after head and neck cancer treatment and outcomes of rehabilitation.