Revolutionizing Service Delivery to Meet Cancer Survivors’ Needs in a Pandemic and Beyond

ACRM Pandemic Webinar Series

Mackenzi Pergolotti PhD, OTR/L
Director of Research, ReVital Cancer Rehabilitation
Disclosure

Dr. Pergolotti receives a salary from ReVital Cancer Rehabilitation, Select Medical.
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors
2. Understand the state of evidence for cancer telerehabilitation
3. Propose best practices for cancer telerehabilitation during and post COVID-19
4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.
5. Identify opportunities to sustaining cancer telerehabilitation services post pandemic.
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors
2. Understand the state of evidence for cancer telerehabilitation
3. Propose best practices for cancer telerehabilitation during and post COVID-19
4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.
5. Identify opportunities to sustaining cancer telerehabilitation services post pandemic.
Cancer care in the Pandemic

- Oncologists meeting existing and new patients via telehealth platforms
- Increased reliance on multidisciplinary team
- Patient and provider distress due to complex, high risk decision making
- Postponed surgeries
- Delayed screening and initiation of treatment
- Alterations in routine care and treatment regimens
- Many clinical trials put on hold
- Social distancing, stay at home orders and need for PPE
The Perception of Access

**Pre-COVID**
- Access is a common barrier for many with cancer
- Expectations:
  - No access? = SETTLE

**During COVID-19**
- Access is barrier for EVERYONE
- Expectations:
  - Tele-based delivery of services
  - Multidisciplinary collaboration

https://512pixels.net/2012/12/imac/

Is Telerehab the “new normal” in oncology?

Oncology patients...
- High prevalence
- High risk
- Limited access to care
- Prospective surveillance needs

- Connected to dial up or LAN
- Small processor
- Limited applications
- High cost
- Low accessibility

- Connected to 4G
- Powerful processor
- 2.2 million applications (2017)
- Relatively affordable
- Mod-high accessibility
“Some people see innovation as change, but we have never really seen it like that. It’s making things better.”

– Tim Cook, CEO, Apple
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors

2. Understand the state of evidence for cancer telerehabilitation

3. Propose best practices for cancer telerehabilitation during and post COVID-19

4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.

5. Identify opportunities to sustaining cancer telerehabilitation services post pandemic.
What do we know? – Key Research Evidence

   - "Effect of Collaborative Telerehabilitation on Functional Impairment and Pain Among Patients With Advanced-Stage Cancer: A Randomized Clinical Trial"

2. Lyons, et al. 2015
   - "Development and Initial Evaluation of a Telephone-Delivered, Behavioral Activation and Problem-solving Treatment Program to Address Functional Goals of Breast Cancer Survivors"

   - "Randomized controlled trial of a multi-site speech pathology telepractice service providing swallowing and communication intervention to patients with head and neck cancer: Evaluation of service outcomes"

   - "Evaluation of a Web-based Cognitive Rehabilitation Program in Cancer Survivors Reporting Cognitive Symptoms After Chemotherapy"

5. Cox, et al. 2017
   - "Cancer Survivors’ Experience With Telehealth: A Systematic Review and Thematic Synthesis"
What do we know? – WHO

Evidence from the selected key studies supports **feasibility** and **acceptability** for adults with...

- Breast cancer
- Advanced stage cancer who have functional limitations and pain
- Head and neck cancer
- Patients with cancer-related cognitive dysfunction
What do we know? - WHY

*Cancer telerehabilitation can...*

**Improve patient’s..**
- Functioning $^{1,2}$
- Coping and problem-solving skills $^2$
- Quality of life $^{1,2,3}$
- Cognition $^4$
- Likelihood of being discharged to their home $^1$

**Decrease..**
- Cancer-related pain $^1$
- Fatigue $^4$
- Anxiety and depression $^4$
- Days spent in the hospital $^1$

**Result in high patient satisfaction with care $^{2,3,5}$ and with their therapist-patient relationship. $^5$**
What do we NOT know?

Evidence-based best practice guidelines for discipline-specific cancer telerehab

So what do we do?

• Follow best available evidence and contribute to development of best practices.
• Identify principles of telerehab best practices in key research.
Effect of Collaborative Telerehabilitation on Functional Impairment and Pain Among Patients With Advanced-Stage Cancer: A Randomized Clinical Trial

Andrea L. Cheville, MD, MSCE; Timothy Moynihan, MD; Jeph Herrin, PhD; Charles Loehrinzi, MD; Kurt Kroenke, MD

Cost-effectiveness of the Collaborative Care to Preserve Performance in Cancer (COPE) trial tele-rehabilitation interventions for patients with advanced cancers

Colleen F. Longacre¹ | John A. Nyman¹ | Sue L. Visscher² | Bijan J. Borah² | Andrea L. Cheville³
COPE Trial
Cheville et al., 2018, 2019, & 2020

Effect of Collaborative Telerehabilitation on Functional Impairment and Pain Among Patients With Advanced-Stage Cancer
A Randomized Clinical Trial
Andrea L. Cheville, MD, MSCE; Timothy Moynihan, MD; Jeph Herrin, PhD; Charles Loprinzi, MD; Kurt Kroenke, MD

- Improved function
- Improved pain intensity and interference
- Enhanced likelihood of home discharge
- Fewer days in hospital
- ICER of $15,494/QALY
- Was most cost-effective strategy in 95.4% of simulations
- Lower inpatient hospitalization costs

Cost-effectiveness of the Collaborative Care to Preserve Performance in Cancer (COPE) trial tele-rehabilitation interventions for patients with advanced cancers
Colleen F. Longacre1 | John A. Nyman1 | Sue L. Visscher2 | Bijan J. Borah2 | Andrea L. Cheville3
Implications for telerehab best practice and research:

1. Telerehab was safe, feasible and effective for individuals with advanced cancer with functional needs and pain
2. Incorporation and modification of REST program
3. Used PRO as screening tool
4. Demonstrated impact on cost and hospitalization
5. Collaborative care model
“Be a yardstick of quality. Some people aren’t used to an environment where excellence is expected.”

– Steve Jobs, Co-founder, Apple
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors
2. Understand the state of evidence for cancer telerehabilitation
3. Propose best practices for cancer telerehabilitation during and post COVID-19
4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.
5. Identify opportunities to sustaining cancer telerehabilitation services post pandemic.
Key Principles of Tele-rehab Best Practices

Key principles serve as a framework for telerehab delivery best practices.
Core Standards and Guidelines In Telerehab

- Adherence to professional code of ethics and scope of practice
- Adherence to institutional, state, federal, and international country laws
- Selection of appropriate technologies “fit for purpose” and of high quality
- Client selection
- Client safety
- Clinical education and professional development
- Telerehab underpinned by evidence based practice
- Modification to assessment and treatment
- Stakeholder support

The Path to Best Practices
“You can’t connect the dots looking forward; you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future.”

– Steve Jobs, Co-founder, Apple
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors
2. Understand the state of evidence for cancer telerehabilitation
3. Propose best practices for cancer telerehabilitation during and post COVID-19
4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.
5. Identify opportunities to sustain cancer telerehabilitation services post pandemic.
Challenges to Sustaining Cancer Telerehab

- Infrastructure
- Operations
- Reimbursement
- Policy
- Implementation/integration
- Patient expectations and awareness
- Oncology-specific best practices
- Literature gaps
“You can focus on things that are barriers or you can focus on scaling the wall or redefining the problem.”

– Tim Cook, CEO, Apple
Learning Objectives

1. Discuss the impact of the pandemic on the rehabilitation needs of cancer survivors
2. Understand the state of evidence for cancer telerehabilitation
3. Propose best practices for cancer telerehabilitation during and post COVID-19
4. Identify challenges to sustaining cancer telerehabilitation services post pandemic.
5. Identify opportunities to sustain cancer telerehabilitation services post pandemic.
A Health Services Research Agenda to Fully Integrate Cancer Rehabilitation Into Oncology Care

Mackenzi Pergolotti, PhD, OTR/L 1,2; Catherine M. Alfano, PhD 3; Alison N. Cernich, PhD, ABPP-CN 4; K. Robin Yabroff, PhD 5; Peter R. Manning, MBA 6; Janet S. de Moor, PhD, MPH 7; Erin E. Hahn, PhD, MPH 8; Andrea L. Cheville, MD 9; and Supriya G. Mohile, MD, MS 9

The Balance of Quality Cancer Care

Health Care Efficiency
Low efficiency (siloed care, no rehabilitation)
High efficiency (personalized care coordinated with rehabilitation where indicated)

Health Care Spending

Total Episode of Care Cost
Low
High
Not Ideal
Ideal

Patient Outcomes & Clinician Experience

Patient Quality of Life & Function; Clinician Burnout

Figure 1. Optimizing health care efficiency also will optimize patient outcomes, clinician experience, and cost.

# HSR Agenda to Integrate Cancer Telerehab

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increase understanding of beliefs and expectations regarding cancer rehabilitation care, delivery, cost, and value</td>
<td>Identify better ways to involve all stakeholders</td>
<td>Create value metrics that truly add patient centered value</td>
<td>Accelerate/scale changes that work by evaluating rehabilitation in value-based care payment initiatives</td>
<td>Improve evidence regarding drivers of variations in care and identify low-value care</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Assess the use of technology for referral, evaluation, and treatment delivery</td>
<td>Build workforce capacity to deliver cancer rehabilitation services</td>
<td>Answer key questions within cancer rehab and HSR to inform the redesign of health policy “scoring rules”</td>
<td>Test methods for dissemination and implementation of new care models</td>
<td>Develop program evaluation methods that allow for rapid feedback and continuous quality improvement</td>
</tr>
</tbody>
</table>
“Life can be much broader once you discover one simple fact: Everything around you that you call life was made up by people that were no smarter than you. And you can change it, you can influence it… Once you learn that, you’ll never be the same again.”

– Steve Jobs, Co-founder, Apple
References

THANK YOU!

mpergolotti@revitalcancerrehab.com
@mpergolottiPhD