Leveraging a Team Mental Model to Develop a Cancer Anorexia Cachexia Syndrome Team

**Team Lead:** Diane G. Portman, MD, FAAHPM  
Supportive Care Medicine, Moffitt Cancer Center

**Teams Researcher:** Lee Ellington, PhD  
College of Nursing, University of Utah

**Patient Advocate:** Rosa Holloway  
Department of Thoracic Oncology, Moffitt Cancer Center

**Writing Team Members:** Sarah Thirlwell, RN, MSc, MSc(A), Kristine A. Donovan, PhD, Christine Alvero, DPT, MBA, Jhanelle Gray, MD  
Moffitt Cancer Center
Learning Objectives

• Identify the care challenges of current-state Cancer Anorexia Cachexia Syndrome (CACS)
• Define the team principle of Team Mental Model (TMM) & the types of knowledge involved
• Describe the application of TMM to new CACS team formation and function
• Specify possible research directions for the study of TMMs in healthcare teams
Outline

• Background
• CACS case and challenges
• Review of the principle of TMM
• TMM and CACS case deficits
• Leveraging the TMM for CACS care solutions
• Research opportunities
• Taking it Home
Background

- Cancer Centers are implementing integrated care delivery strategies including multidisciplinary teams

- Existing body of knowledge on barriers and promoters of care integration
  – Highlights problems in fostering collaboration and cooperation across professional boundaries

- Team Science suggests a *shared mental models* framework may enable more coordinated and effective action towards integrated care

The Case: 62-year-old Man with NSCLC & CACS

- Fragmented approach of various disciplines to Mr. L.’s CACS care

- Absence of shared mental model among the providers, patient, caregiver for CACS care
  - Limited shared knowledge among providers about tasks to be performed, other clinicians’ functions, optimal processes for CACS care
  - Each provider responsive to individual symptoms
  - Patient & the family caregiver at odds with providers
The CACS Challenge

• Loss of skeletal muscle mass; reduced food intake
  – Progressive functional impairment
  – Interferes with anti-cancer treatments
  – Major cause of patient and caregiver distress

• Progress made in understanding stages and mechanisms
  – Promising pharmacologic & supportive-care interventions

• Coordinated care lacking
  – Few specialized clinics devoted to the management of CACS
  – Time and resource requirements are challenges in busy clinical oncology practice
  – Inconsistent screening, assessment, staging and management
  – Impetus to refer out to various specialists or engage in crisis management
Coordinating Mechanisms
Team Mental Model (TMM)

Definition:

• Team members’ shared, organized understanding and mental representation of knowledge about key elements of the team’s environment

• Teams with a well-developed TMM have a similar view of what is happening, what is likely to happen next, why it is happening and what members may need
| Task-related knowledge: **The WHAT** | • Team members share a similar representation of the task work the team is performing.  
• This knowledge holds across a variety of tasks and allows team members to draw common interpretations.  
E.g., team members are familiar with how to stage CACS based on established international consensus criteria. |
| --- | --- |
| Team-related knowledge: **The WHO** | • Team members know characteristics and expertise of their teammates and of the team itself.  
• Understand how each member’s specific knowledge and skills serve the goals of the team as a whole.  
• Specific expertise and skills are distributed among team members yet are complimentary.  
E.g., for anorexia: The palliative care clinician determines the appropriateness of appetite stimulants and the dietitian focuses on preferred foods that may increase intake. |
| Team process knowledge: **The HOW** | • Shared mental model of the interpersonal processes among team members; teamwork.  
• Understanding and expectations among team members related to communication, coordination, and leadership.  
E.g., each CACS team member is integral to the development of a single cohesive CACS care plan by communicating their assessment and recommendations to the other team members. |
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<th>Key Elements of TMM</th>
<th>Key TMM-related Deficits in CACS Case</th>
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| **Task-related knowledge:** The WHAT | • Lack of shared knowledge of the constellation of symptoms that characterize cancer anorexia-cachexia and its stages  
• Absence of a shared perspective that this is a syndrome requiring multidisciplinary early recognition and intervention  
• Gap in shared understanding of CACS management strategies |
| **Team-related knowledge:** The WHO | • Multiple sequential referrals to various disciplines with unclear responsibilities  
• Crisis-oriented referrals  
• Little emphasis on patient and family member priorities and goals |
| **Team process knowledge:** The HOW | • Absence of communication among multidisciplinary providers regarding patient assessments, findings and recommendations  
• Failure to integrate the various evaluations and recommendations into a global care plan  
• Lack of a documented CACS patient care plan derived and vetted by all the CACS providers  
• Inadequate coordination of care resulting in exclusion of patient and family from care planning |
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<th>Key Elements of TMM</th>
<th>TMM-leveraged CACS Care</th>
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| **Task-related knowledge:**  
  **The WHAT** | **• Provision of inter-professional, patient, and family education regarding CACS presentation, staging and outcomes**  
  **• Establish comprehensive CACS screening and early referral criteria**  
  **• Develop a comprehensive, multidisciplinary CACS assessment**  
  **• Establish discipline-specific CACS management guidelines** |
| **Team-related knowledge:**  
  **The WHO** | **• Representatives of disciplines join together to provide proactive, multimodal team-based clinic care**  
  **• Delineate CACS team member roles and accountabilities, including the patient and family**  
  **• Elicit patient and family member priorities and goals** |
| **Team process knowledge:**  
  **The HOW** | **• Consolidate the individual multidisciplinary visits as a CACS clinic team visit**  
  **• Creation of an interdisciplinary CACS documentation template to standardize assessment and hand-offs**  
  **• Interdisciplinary team meetings including the patient and family to create a consensus care plan** |
Areas for Research Attention in TMM
Structure, Process & Outcomes

– Assessing the role of patients and families in the CACS TMM
– Evaluation of the team members’ satisfaction and engagement in the teamwork process
– Measure the concordance between the care provided and the expressed needs of the patient and family caregiver
For Our Patients

Rapid Access
Coordinated Expertise
Knowing All Options/Education

Improved Outcomes
Better Experience
Accelerated Time to Treatment

For the Cancer Center

Patient Satisfaction
Enhanced Research
Improved Integration of services

Volume Growth
Clinical Efficiency
Better Care
Conclusions

• Evidence exists that early assessment and management of the constellation of symptoms that characterize CACS can improve patient quality of life and decrease disruption of cancer treatments.

• Multimodal evaluation and treatment is recognized as the optimal approach to CACS, but can lead to delayed and fragmented care that results in patient and caregiver burden and distress.

• Given what is known from the team science literature, CACS team formation and integration of care based on a Team Mental Model shows promise for improving care.