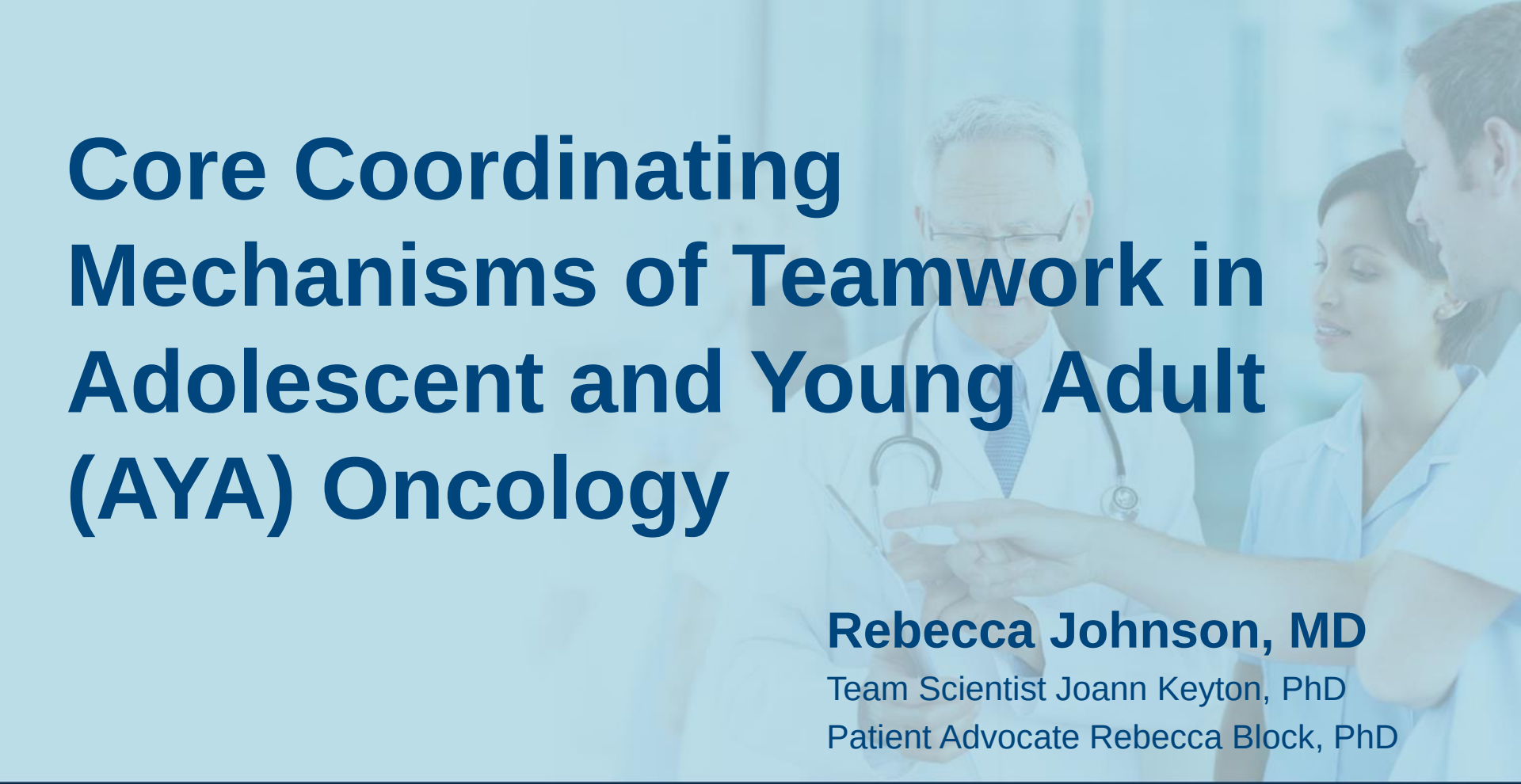
# Core Coordinating Mechanisms of Teamwork in Adolescent and Young Adult (AYA) Oncology



**Rebecca Johnson, MD**

Team Scientist Joann Keyton, PhD

Patient Advocate Rebecca Block, PhD

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# Learning Objectives

- **Define three core coordinating mechanisms of teamwork**:
  1. Closed loop communication
  2. Shared mental models
  3. Mutual trust
- **List ways in which effective use** of core coordinating mechanisms **can optimize** interactions within an AYA multidisciplinary oncology team (MDT)

# AYA Oncology

- Emerging discipline
- Targets >70,000 patients aged 15 to 39 diagnosed with cancer annually
- **Distinctive issues for AYA patients**
  - Lack of survival improvement
  - Risk for suboptimal therapy, infertility, financial burden
  - Disruption of normative developmental tasks
  - Negative sequelae such as post-traumatic stress
- **Challenges for providers**
  - Age-specific needs can complicate cancer care delivery (e.g. fertility preservation)
  - Patients often:
    - Juggle work, school and childcare
    - Lack health insurance

# Multidisciplinary Teams (MDT) in AYA Oncology

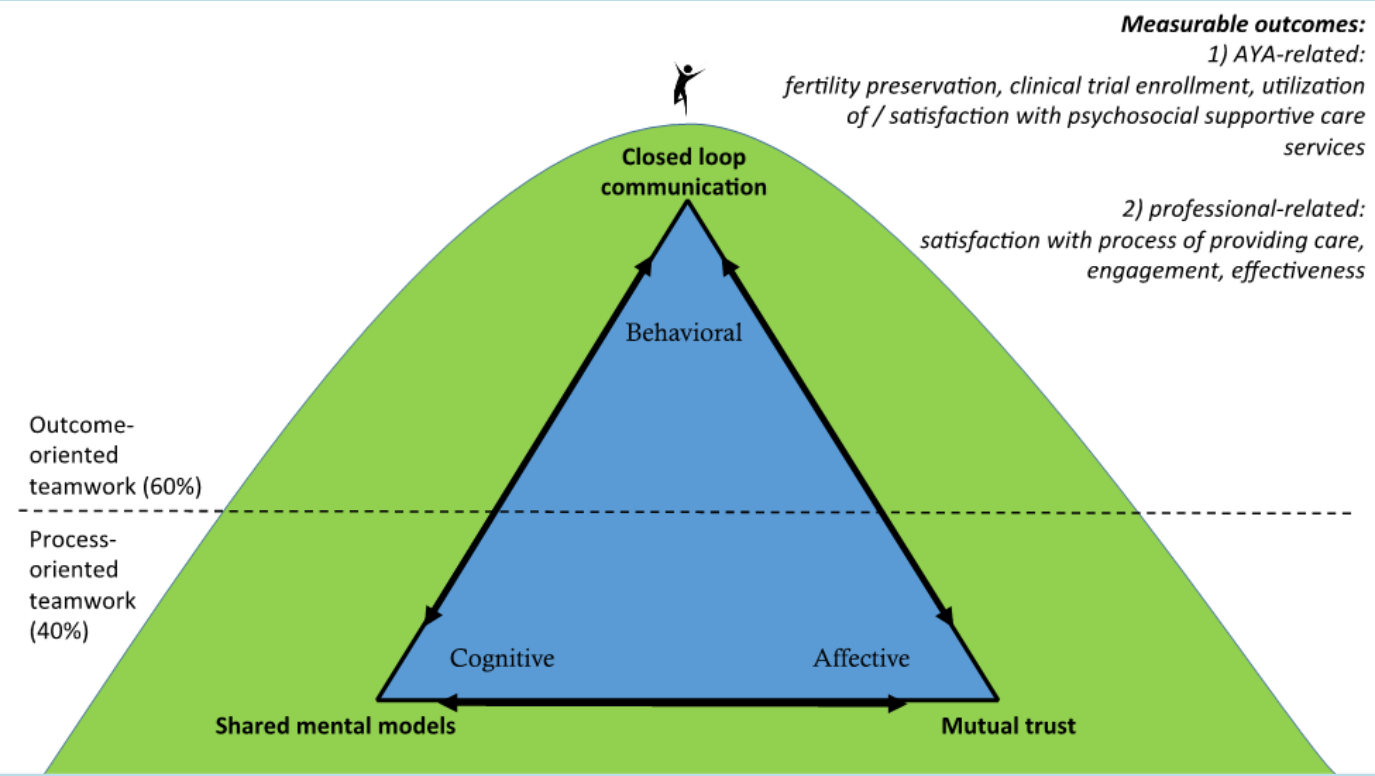
- May be either dedicated or ad hoc
- AYA Guidelines (NCCN, IOM and ASCO) aim to improve service delivery by encouraging:
  - Clinical trial participation
  - Fertility preservation
  - Provision of psychosocial support services
- **Effective team communication is required for high value care**
  - AYA care involves collaboration between disparate groups of clinicians that do not traditionally interact

| | Definition | Considerations for Utilizing | Effects |
|---|---|---|---|
| **Closed Loop Communication (CLC)** | **Simple three-step verbal procedure** to ensure team members communicate effectively during a task:<br><br>1) team member **calls out** observation about patient or task, making all team members aware<br>2) second team member **verifies** message has been received<br>3) first team member **acknowledges** communication and verifies it was interpreted as he/she intended | - **Occurs in front of all team members present** → any member may speak up to correct an error<br><br>- Most effective when **directive,** addressing team member by name<br><br>- May be initiated by any member (most often **team leader**) | - **Interchange is verbal and public**; all team members present may benefit<br><br>- **Assumed effective** for medical MDTs **but <u>no empirical tests reported</u>** |

| | Definition | Barriers and Facilitators | Effects |
|---|---|---|---|
| **Shared Mental Models (SMM)** | -**Provide a basic, common framework** for communication<br><br>- Help team members to **"describe, explain, and predict events"** that occur in the team environment<br><br>- **Based on knowledge of facts and/or tasks**<br><br>- Are about tasks, but may **facilitate implicit coordination** without explicit discussion → minimizing task stress<br><br>- **Accrue** as team members share information **over time**<br><br>- **May change quickly** in the setting of dynamic, ambiguous or emergency situations | **Barriers:**<br>1) **Rigid** hierarchical role structure<br>2) **Differing views** of MDT roles and responsibilities<br>3) **Role duplication**, especially among team leaders<br><br>**Facilitators:**<br>1) **Regular interactions** of MDT<br>2) **Modeling** of effective processing and communication by team leader<br>3) **Empowering all team members** to question, comment on ideas, and help team members move to new SMM<br>4) **Formal training** or practice | - **Help team members understand events, draw inferences, make predictions** in similar ways → anticipate needs of colleagues, adjust clinical strategies |

| | Definition | Barriers and Facilitators | Effects |
|---|---|---|---|
| **Mutual Trust (MT)** | - **"The shared belief that team members will perform their roles and protect the interest of their teammates"**<br><br>- **Present in effective MDTs but not automatically triggered** by role-oriented behavior or through routine professional interaction;<br><br>- **Based on specific, positive interpersonal relationships** | **Barriers:**<br>1) Healthcare professionals place more trust in colleagues who share **similar roles**<br>2) **Divergent understanding** between different professional roles (who is getting work done)<br><br>**Facilitators:**<br>1) Common understanding between different professional roles<br>2) **Belief that all members perform their roles for the highest good** of group and patient<br>3) **Presence of strong SMM** in the MDT | **Team members feel valued and acknowledged** when each individual contributes to group's decision-making |

# Climbing the hill: core coordinating mechanisms at work within a multidisciplinary team



# Case Summary

***Day 1, evening:  27 year-old*** *Steve presents community hospital with pancytopenia and peripheral lymphoblasts*

***Day 2:*** *Bone marrow aspiration shows* ***pre-B ALL***

- *Steve is* ***transferred to county hospital*** *because he is uninsured*

***Day 3, morning:***

- *Steve's mother flies in form out of state. She is surprised discover Steve is gay and meet his boyfriend, creating* ***need to establish*** *who will be Steve's primary caregiver*
- *Medical oncologist offers* ***HyperCVAD*** *induction*
- *Steve reads online about* ***superior outcomes using high-intensity pediatric protocols***
- *Steve's* ***oncologist calls around*** *and contacts a pediatric oncologist, who recommends a pediatric-inspired protocol*

# Case Summary (2)

***Day 3, afternoon:***

- *Oncologist mentions **infertility** as potential adverse effect of therapy*
- ***Sperm banking initially not offered***
- *Steve expresses **wish to father children***
- ***Chemotherapy put on hold** for sperm banking*
- ***Nurse questions safety** of delay*
- ***Oncologist doesn't know how to arrange sperm banking**; calls pediatric oncologist; directed to pediatric social worker who shares sperm bank contact information*
- *Sperm bank says next available appointment is 2 days hence. **Oncologist convinces fertility clinic to facilitate urgent sperm banking** as an inpatient*
- *Steve's **oncologist finds an open pediatric-inspired clinical trial for young adults** with ALL on the Cancer Trials Support Unit (CTSU) website, contacts the principal investigator for the county hospital, and enrolls Steve*

***Day 4, morning:** Steve successfully completes sperm banking and **starts chemotherapy***

# Analysis: focus on fertility preservation

Oncologist's interactions with…

- ***Patient:*** initial failure to offer sperm banking → absence of **SMM**
- ***Nurse:*** questioning safety of treatment delay → lack of **SMM** or trust in oncologist
  - Empowerment to disagree shows some degree of **MT**
  - Conversation creates a "teachable moment;" Oncologist may apply **CLC** and bolster **MT and SMM** by discussing importance of fertility preservation
- ***Social worker:*** request for information re: sperm bank is both direct and effective due to **CLC**
- ***Sperm bank coordinator:*** lack of **SMM** regarding timely fertility preservation prior to cancer therapy
- ***Patient:*** oncologist's advocacy for urgent sperm banking
  - Draws upon **SMM** with patient
  - Enhances **MT**

# Conclusions

**Implications for Practice**

- **MDTs must manage interdependent tasks**
  - Within and across groups
  - Despite time constraints and competing commitments
- **Can't presume** that MDTs will spontaneously or deliberately utilize the concepts of CLC, SMM, and MT
- **CLC** is not a natural type of conversation; the **team must practice**
- **SMMs**
  - **May exist for some issues but not others → Call out SMMs** verbally and publicly
  - Focused on tasks, but may positively influence relational quality
  - We propose that MT represents one critically important type of SMM in MDTs
- **After-case review may help train MDTs** to support and enhance interactions between team members

**Future Directions**

- **Can specific training**, to improve communication within the AYA MDT, **influence outcomes?**
  (clinical trial accrual, rates of fertility preservation and patient satisfaction)
- Data generated can be used to **create evidence-based standards to streamline the teamwork** of AYA MDTs