Challenges and Promises of Multi-Team Care

Collaborations among Research and Clinical Teams

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Case summary

• 64y male former smoker accountant diagnosed with stage 4 lung squamous cell cancer offered participation in clinical trial of chemotherapy ± immunotherapy

• Lack of available space for research coordinator to meet with patient → need to “borrow” infusion room → multiple interruptions by clinic/infusion RNs

• Protocol requirement for treatment initiation within 72 hours of patient registration → infusion charge RN must reschedule other patients on short notice

• Research coordinator (who cannot sign EMR orders due to Meaningful Use requirements) must ask clinic RN to sign patient orders

• Treating physician (and study local PI) complains to research coordinator that requirement to document tumor baseline measurements prior to treatment disrupts her schedule

• On first day of treatment, noted that patient did not receive standard chemotherapy teaching, resulting in substantial scheduling back-up in infusion center

Presented by: David Gerber & Torsten Reimer
Timeline of case events

Day 1: Visit with Dr. Martino and the oncology care team
- Visit includes discussion on clinical trials in which Mr. Ferrell is interested and consented

Day 2: Mr. Ferrell returns to clinic to complete the required procedures for inclusion to the clinical trial

Day 3: The research staff is able to register the patient to the trial and the treatment must start within 72 hours

Day 5: Mr. Ferrell begins treatment on a clinical trial

Oncology Care Team
- Physician/PI
- Clinic Nurse
- Infusion Nurse
- Social Worker

Research Team
- Research Coordinator

Mr. Ferrell

Day 2: Mr. Ferrell calls NCI designated cancer center and makes appointment with Dr. Martino

Day 3: Final pathology reveals metastatic lung cancer. Pulmonologist refers Mr. Ferrell to medical oncologist

Day 4: 4 weeks from initial diagnosis

Day 7: Mr. Ferrell referred to pulmonologist and biopsy performed

Day 9: Chest CT completed showing lung mass and liver lesions

Day 13: Mr. Ferrell presents to his primary care physician for cough and has chest x-ray completed

* Clinical trials often have strict timelines that require clinic staff to make emergency and last-minute appointments
* Clinical trials add extra requirements of both the staff and patient
* Patients being enrolled on clinical trials often see the staff interactions as hectic and unorganized
Manuscript outline

1. Definition of Multi-Team Systems
2. Application to Case
3. Recommendations
4. Challenges / Open Questions
5. Conclusion
Hierarchical teams: Multi-disciplinary teams, cross-functional teams, multi-team systems

<table>
<thead>
<tr>
<th>Teams Type</th>
<th>Description</th>
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<tr>
<td>Multi-Disciplinary Teams</td>
<td>Teams that are composed of clinicians and staff from various disciplines, departments, and units to discuss care planning and management for individual patients with cancer. Awareness of effective teamwork in cancer has largely focused on the development of multi-disciplinary teams, that is, between oncology sub-specialties, leading to tumor board-models for care management and coordination.</td>
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<td>Cross-Functional Teams</td>
<td>Work groups composed of members from different functional backgrounds formed to accomplish organizational goals. With the increasing complexity of many contemporary work environments, teams with cross-functional knowledge and expertise are often employed to handle tasks requiring manifold functional competencies. Cross-functional team research has typically focused on investigating processes affecting cross-functional team performance.</td>
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<td>Multi-Team Systems</td>
<td>Situations in which members clearly define with different primary teams when collaborating on a joint task. Their teams are embedded in a system or unit that encompasses several teams. A classic example would be an emergency evacuation that requires the involvement of the police department, fire fighters, surgical teams, and hospital administration.</td>
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Social Network: Clinical Research Team and Clinical Team
### Challenges faced by multi-team units

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<th>Challenge</th>
<th>Description</th>
<th>Case application</th>
<th>Recommendations</th>
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<td>Alignment of goals / lack of communication</td>
<td>The goals of each team should be compatible with each other and aligned with the collective goal</td>
<td>Research team focuses on the implementation of the study protocol; clinic team focuses on daily routines</td>
<td>Initiate and provide opportunities to negotiate mutual goals; share information pro-actively</td>
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<td>Rivalries among teams / lack of cooperation and cohesion</td>
<td>Members should identify with the overarching collective team and develop a sense of belongingness and trust</td>
<td>Members perceive each other as in-group and out-group members and engage in rivalries</td>
<td>Create a sense of a collective identity; build mutual trust and an understanding of the interdependencies of tasks</td>
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<td>Explicit discussion of roles and milestones and coordination of individual tasks / lack of coordination</td>
<td>Critical steps in the care and responsibilities should be discussed coordinated</td>
<td>Diffusion of responsibility; members are not clear about who is supposed to do what and when</td>
<td>Explicit discussion and plan of deliverables; development of a shared understanding of how protocols will be implemented</td>
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Application to case—challenges

• High dependencies between teams (input, process, outcome dependencies)
• Lack of goal alignment
• Rivalries among teams
• Coordination and communication issues
• Trust issues
Recommendations

• Standardized personnel scope of practice, common priorities, shared performance metrics
• Coaching and cross-training
• Involving clinic staff early on in research processes and providing means for them to share in positive feedback
• Mentorship, collective support, professional recognition
• Engagement of institution leadership
Conclusion

Focus on interactions, perceptions, and attitudes between research staff and clinic staff is essential because clinical research changes too frequently and has too much variability to foresee all possible scenarios and proactively develop protocols. These concepts are not unique to lung cancer or even to oncology, but broadly applicable to the conduct of clinical research in any field.
Our question

How can interdisciplinary teams and teams of teams function?