

Shared Goals Empower Teams in Complex Care Delivery



NCI-ASCO Teams in Cancer Care Delivery



Bradford W. Hesse, PhD
Chief, Health Communication and
Informatics Research Branch





In Memoriam
December 7, 1953
- July 14, 2014

“Those of us with multiple chronic conditions may consult many physicians in the course of a year. Last year, I saw 11. Not one of my doctors has ever communicated directly with another... I am the sole arbiter of who gets what information in what format and when.”

Jessie Gruman

Source: Gruman JC. Making health information technology sing for people with chronic conditions. American journal of preventive medicine. 2011;40 (5 Suppl 2):S238-240.

Joint Cognition

Ayan Sen

Project Management

Ruth Carlos



Collaborative Goal Setting

Allison Magnuson

Backup Behavior

Fleur Huang

Joint Cognition

Sen, Ayan et al.



Joint Cognition

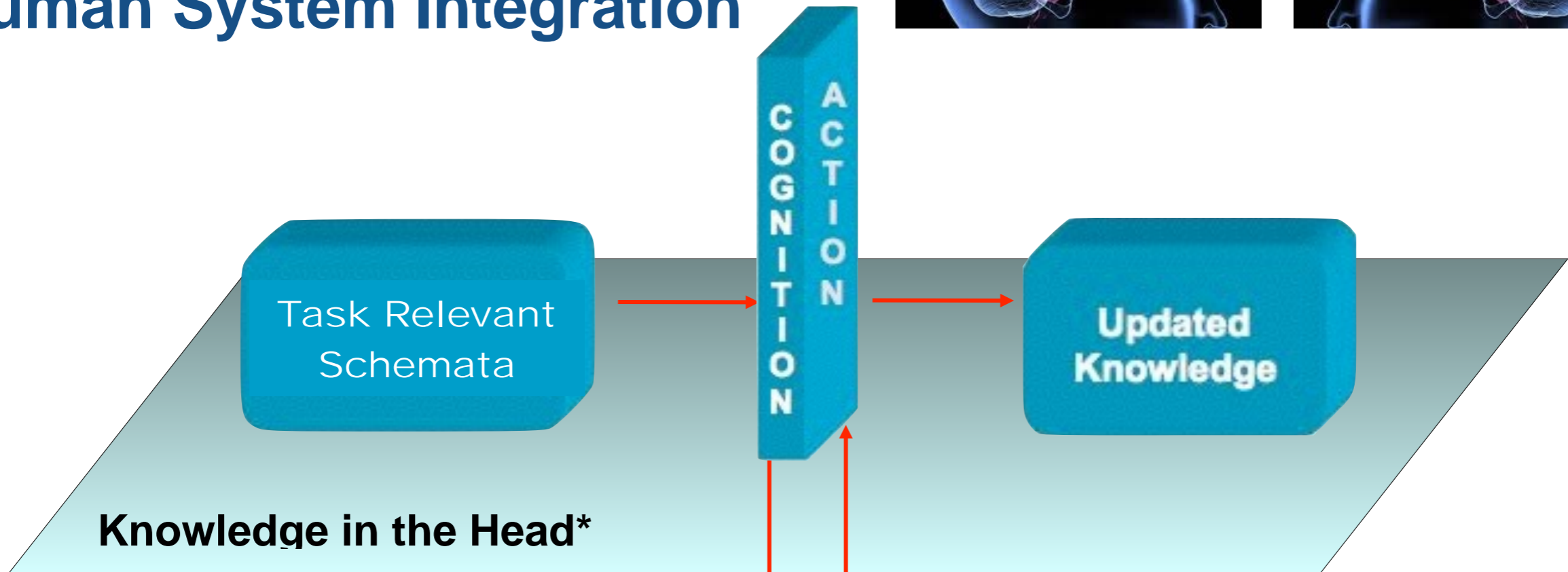
Main Idea

“Joint cognition is the combination of humans and automation/ technologies which must interact as co-agents to solve problems and achieve goals and objectives in a complex work domain.”

-Sen, Ayan et al

Joint Cognition

Human System Integration



Knowledge in the Head*

Knowledge in The World*



Joint Cognition

Limitations in current system



Joint Cognition

Limitations in current system



Joint Cognition

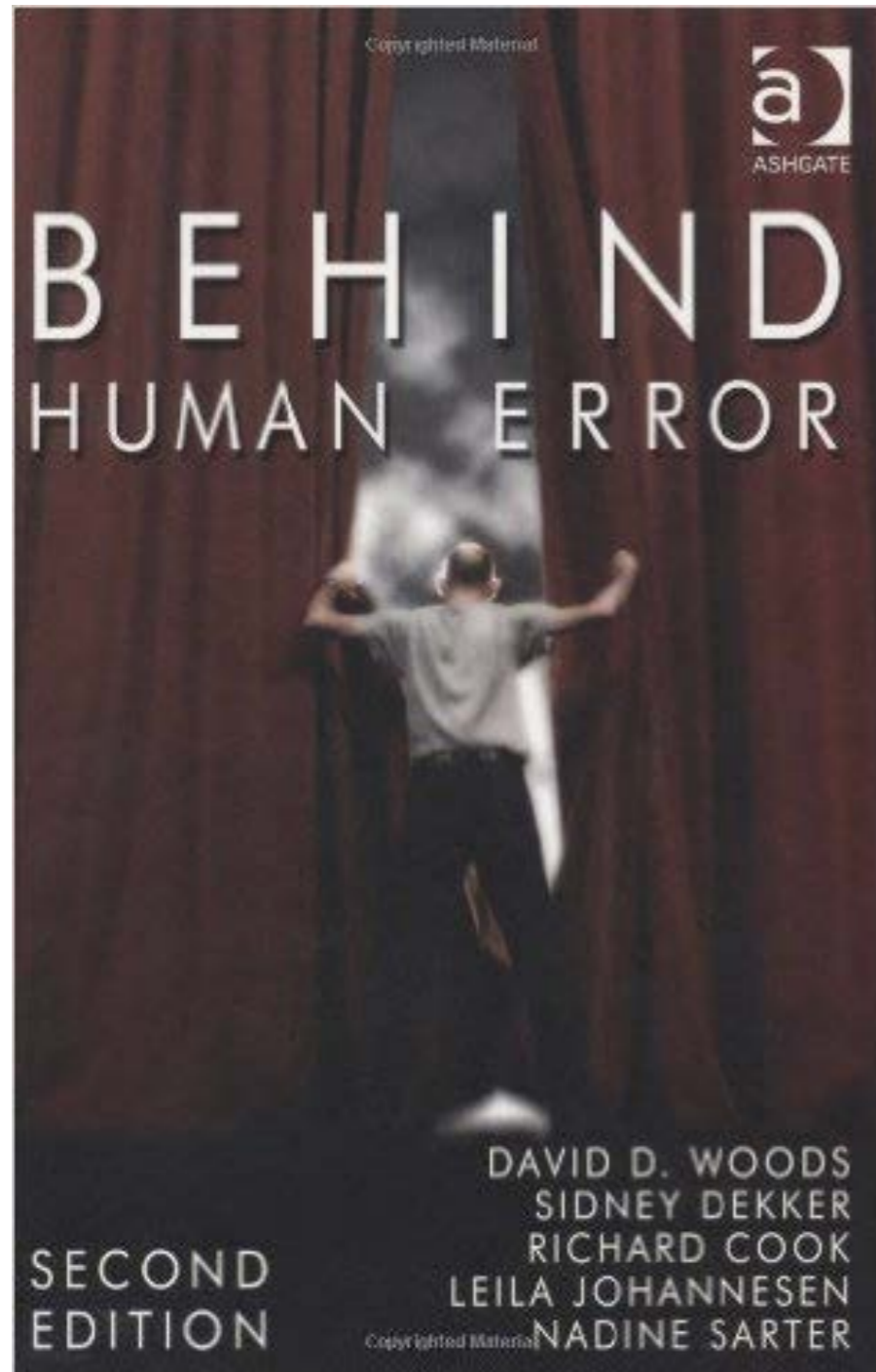
Why joint cognition fails

- 📌 Team complexity
- 📌 Dynamic communication and coordination challenges
- 📌 Goals and perspectives of different specialists
- 📌 Poorly designed communication technology and medical records



Joint Cognition

Deconstructing & Preventing Error



Cognitive Ergonomics

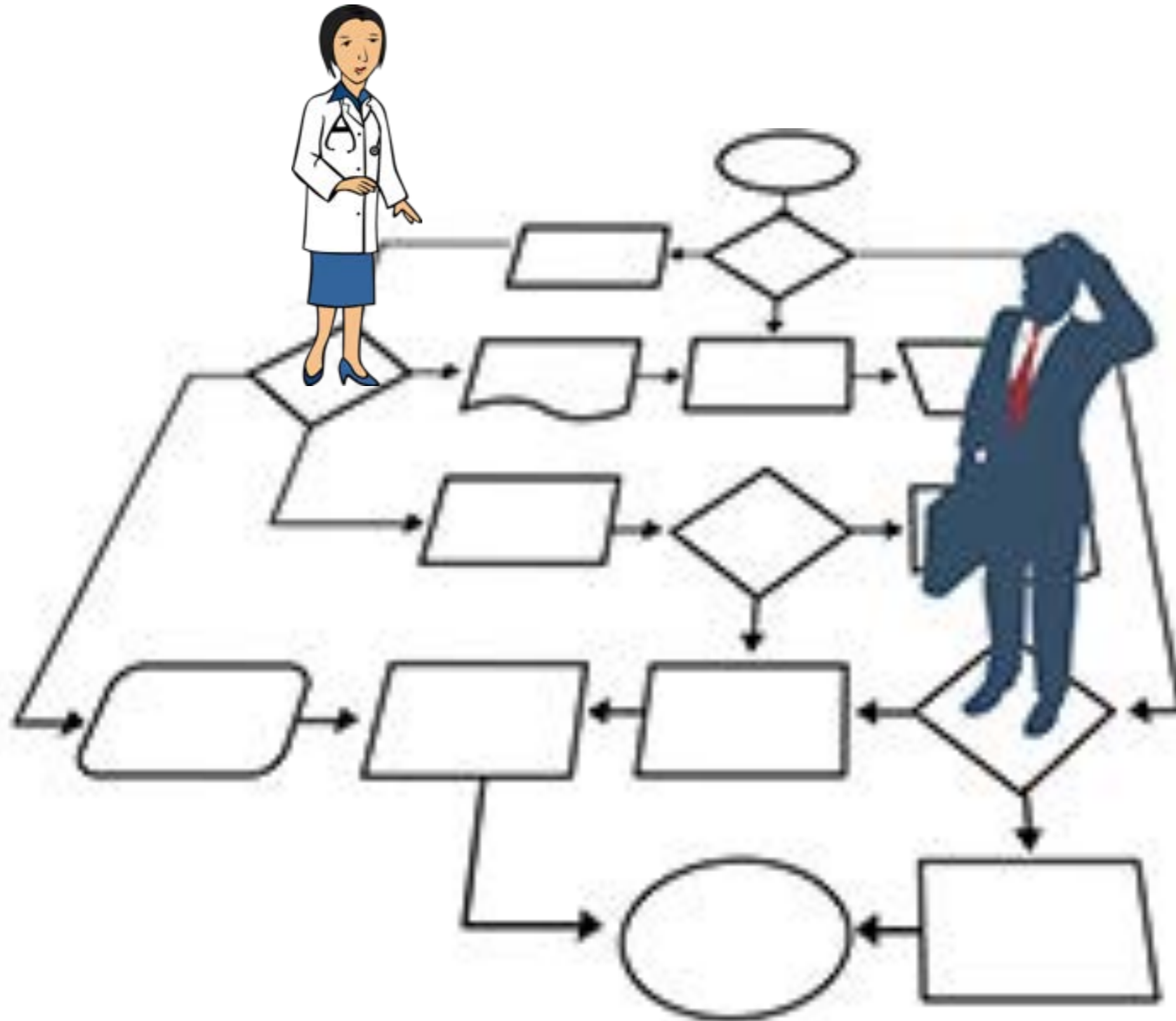
- Improving situational awareness
- Error-proofing communication
- Creating a platform for shared decision-making

EDITION
SECOND

Copyrighted Material
NADINE SARTER
LEILA JOHANNESSEN
RICHARD COOK
SIDNEY DEKKER

Project Management

Trosman JR, Carlos RC, et al.



Project Management

Main Idea



“Following IOM recommendations, we propose adapting concepts from project management discipline to facilitate TI (Task Interdependence) management in oncology.”

–Trosman JR, Carlos RC, et al

Project Management

When Management Fails



Competing goals, timelines

No one monitoring task completion or succession

Multiple task dependencies delay tests, treatments

Responsibility for coordinating tasks absent, or falls on patient

The New York Times
ON THE WEB

Awash in Information, Patients Face a Lonely, Uncertain Road

By **JAN HOFFMAN**

Published: August 14, 2005

Sign In to E-



*Cancer patient
Meg Gaines*

Backup Behavior

Huang, Fleur et al



Backup Behavior

Main Idea

“Backup behavior, where one team member steps in to help another, ... help ensure that individual provider efforts can effectively translate into improve palliation for patients with unmet needs.”

-Huang, Fleur et al

Backup Behavior

When Backup Fails






- 📌 Team member refuses patient need: “not my table” phenomenon
- 📌 Roles, tasks unclear
- 📌 Situational awareness is lacking
- 📌 Team member acts beyond license
- 📌 Coordination costs exceed demand

Backup Behavior

Tools for Improvement





-  Monitoring: white boards, dashboards, medical huddle sheets
-  Communication: checklists, skills training, pagers/smartphones
-  Cultural change: Training modules, quality improvement processes

Backup Behavior

Tools for Improvement



 Monitoring: white boards, dashboards, medical huddle sheets

 Communication: checklists, skills training, pagers/smartphones

 Cultural change: Training modules, quality improvement processes




Backup Behavior

Tools for Improvement



 Monitoring: white boards, dashboards, medical huddle sheets



 Communication: checklists, skills training, pagers/smartphones

 Cultural change: Training modules, quality improvement processes



(Shared) Goal Setting

Magnuson, Allison et al



(Shared) Goal Setting

Main Idea

Shared goal setting is an alignment process “that must occur several times at critical decision points throughout the patient’s care continuum.”

-Magnuson, Allison et al

(Shared) Goal Setting

When goal-setting goes awry



- ➊ Reduced effectiveness, teams at cross-purposes, harmful treatment interactions
- ➋ Increased costs, redundant tests and therapies, missed opportunities
- ➌ Patient disengagement, decreased satisfaction, negative quality of life

(Shared) Goal Setting

Main Functions



Directive

Task generative

Energizing

(Shared) Goal Setting



Main Functions

Treatment Plan
Survivorship Plan

Advance Directives



Directive

A screenshot of a 'Treatment Plan' form, showing various fields for patient information, treatment goals, and provider details.A screenshot of a 'Survivorship Plan' form, detailing patient information, treatment history, and future care goals.A screenshot of a 'Maine Health Care Advance Directive Form', which includes sections for patient information, healthcare proxy, and organ donor status.

Joint
Cognition



Task generative



Energizing

(Shared) Goal Setting



Main Functions

Treatment Plan
Survivorship Plan

Advance Directives



Directive

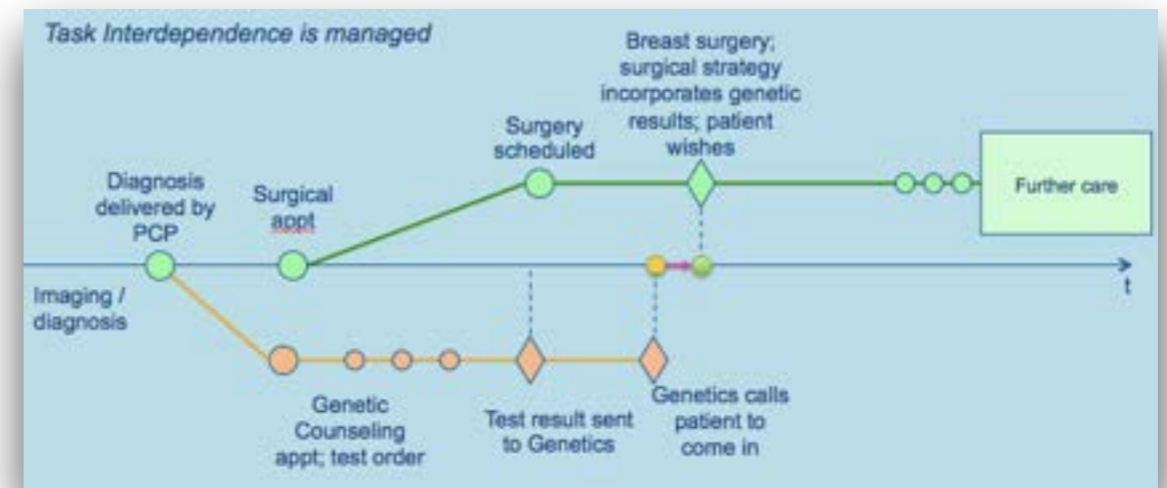
A screenshot of a 'Breast Cancer Clinical Treatment Plan' form, showing various fields for patient information, diagnosis, and treatment details.A screenshot of a 'Breast Cancer Survivorship Care Plan' form, detailing long-term care and follow-up for breast cancer patients.A screenshot of a 'Maine Health Care Advance Directive Form', which is used to document a patient's wishes regarding medical care.

Joint Cognition

Managing tasks



Task generative



Energizing

(Shared) Goal Setting



Main Functions

Treatment Plan
Survivorship Plan

Advance Directives



Directive

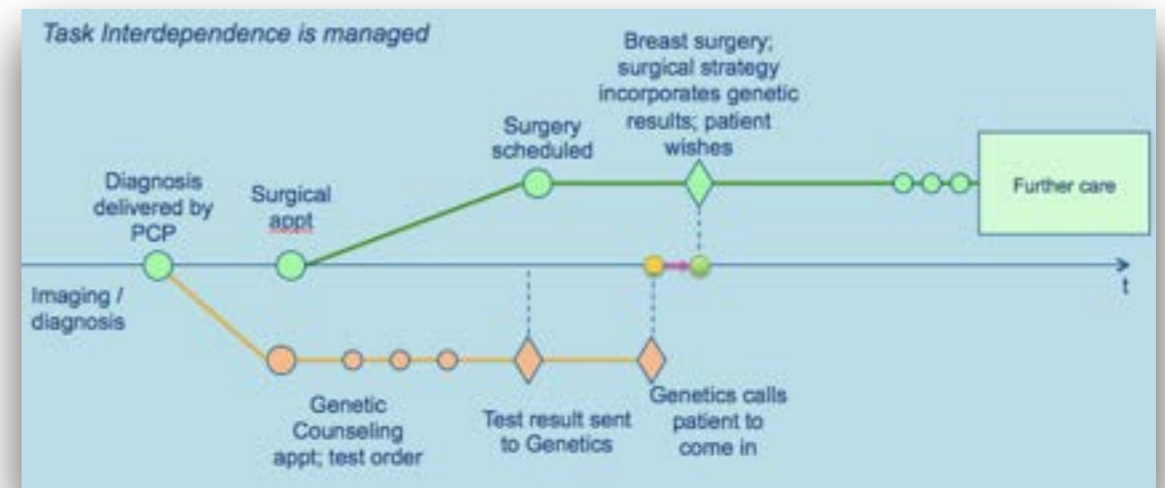
A screenshot of a 'Treatment Plan' form, showing various fields for patient information, diagnosis, and treatment details.A screenshot of a 'Survivorship Plan' form, detailing patient history, current status, and future care goals.A screenshot of a 'Maine Health Care Advance Directive Form', which is a legal document for healthcare decisions.

} Joint Cognition

Managing tasks



Task generative



Energizing

Motivating (e.g.)
back-up behavior



(Shared) Goal Setting

Putting team members on the same page



Primary
Care

Patient

Oncology
Services

Caregiver



(Shared) Goal Setting

Over time



Treatment

Post-treatment

Survivorship



Questions for Discussion

1. How well do the team concepts translate?
 - 1.1. Semantic nuances
 - 1.2. Contextual implications
 - 1.3. Translatable to clinical goals, objectives
2. What are the implications for intervention?
 - 2.1. System redesign
 - 2.2. Tools, aids, protocols
 - 2.3. Training
3. What are the clear next steps for research?
 - 3.1. Biggest problems to solve
 - 3.2. Sequencing of questions; first things first