A Process Model for Handovers

Aligning with the Consensus

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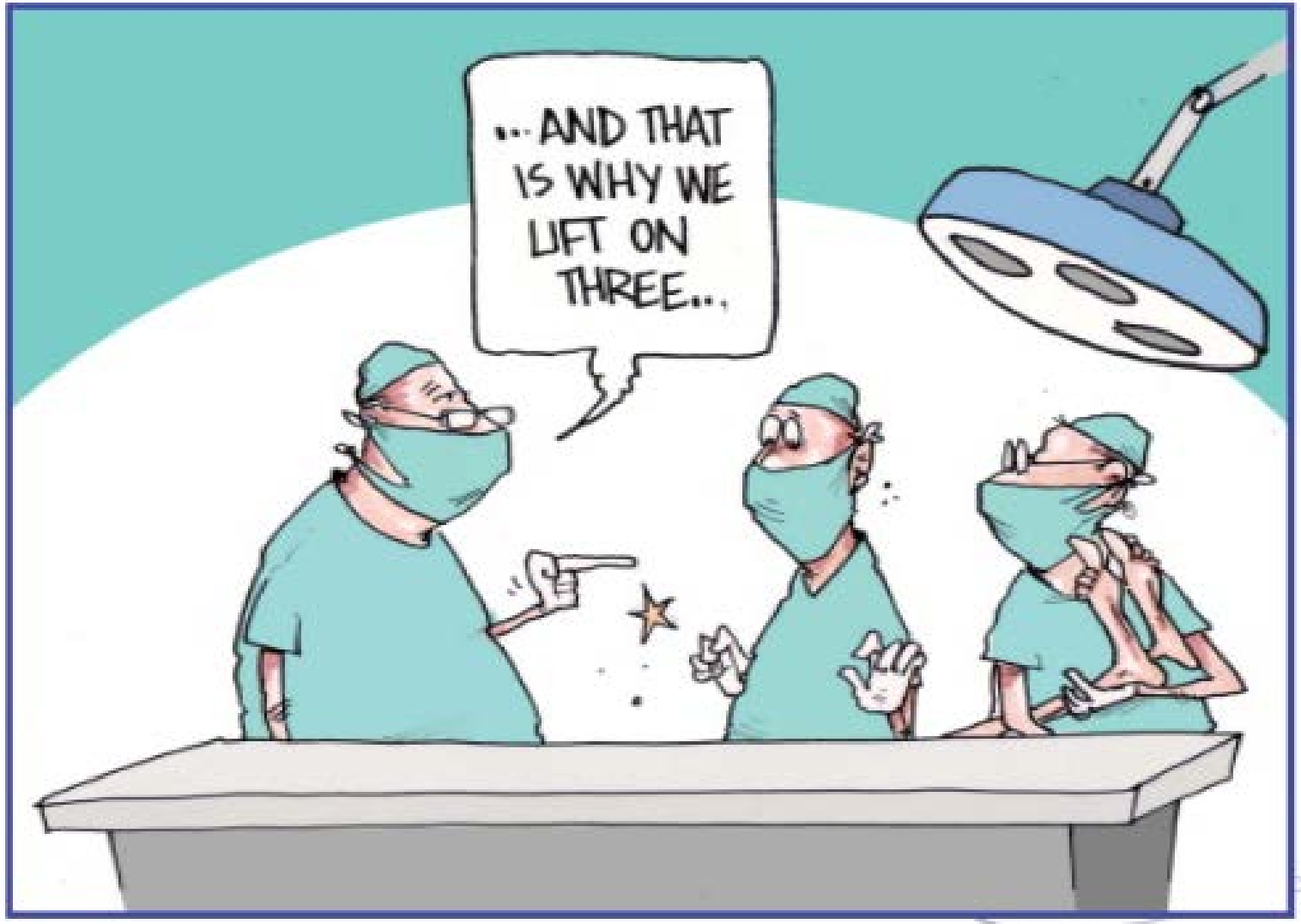
Failures in communication are the most common root cause for near misses and adverse events in the medical domain



Handovers as an ubiquitous teaming activity

- Handoffs occur frequently and are a source of resilience and error
- Handoffs are a *team* activity
  - At least two individuals who are acting interdependently towards a shared goal
  - Specifically, the sharing/updating of a mental model in regard to a patient's status
- There is little to no work surrounding handoffs that focuses on the important aspects of teamwork
- Therefore, this talk addresses this gap and attempts to propose a theoretical model for teamwork during care transitions

SKILLS

GOAL

VISION

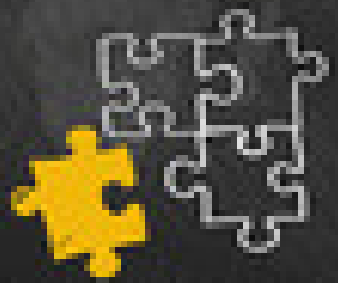
COMMUNICATION

TEAMWORK

?+  =!

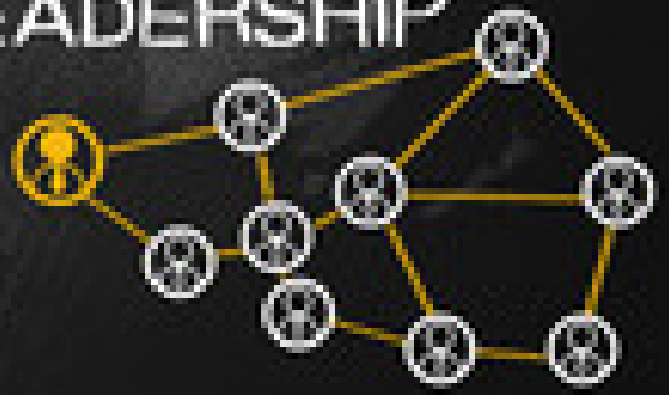
CREATIVITY

RESEARCH



COLLABORATION

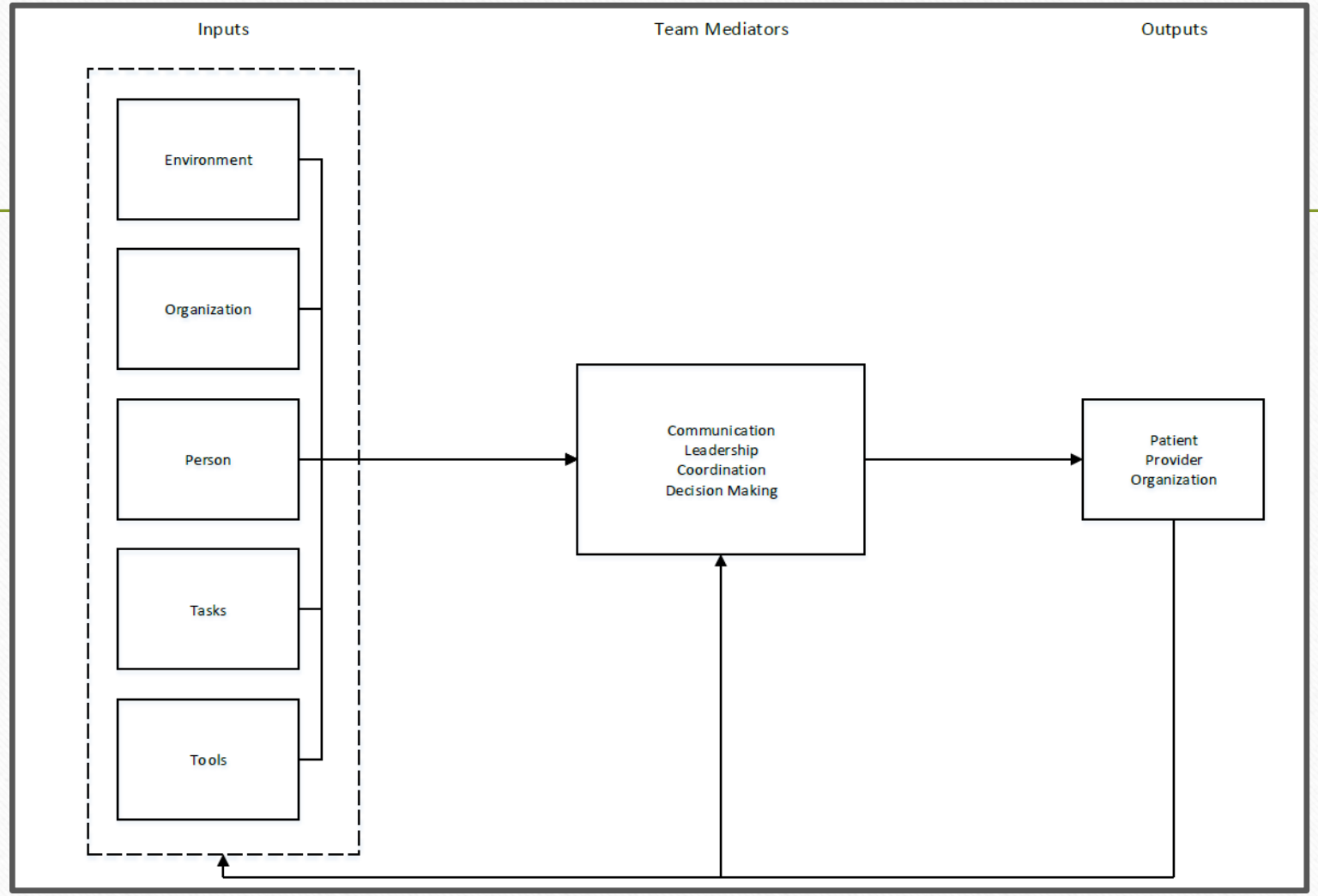
LEADERSHIP



Become a High Performing Team

- Use closed loop communication
- Develop shared mental models
- Provide backup behavior
- Be assertive
- Seek feedback
- Demonstrate collective orientation
- Be flexible and adaptable
- Self correct

IMOI Teamwork Model for Handovers



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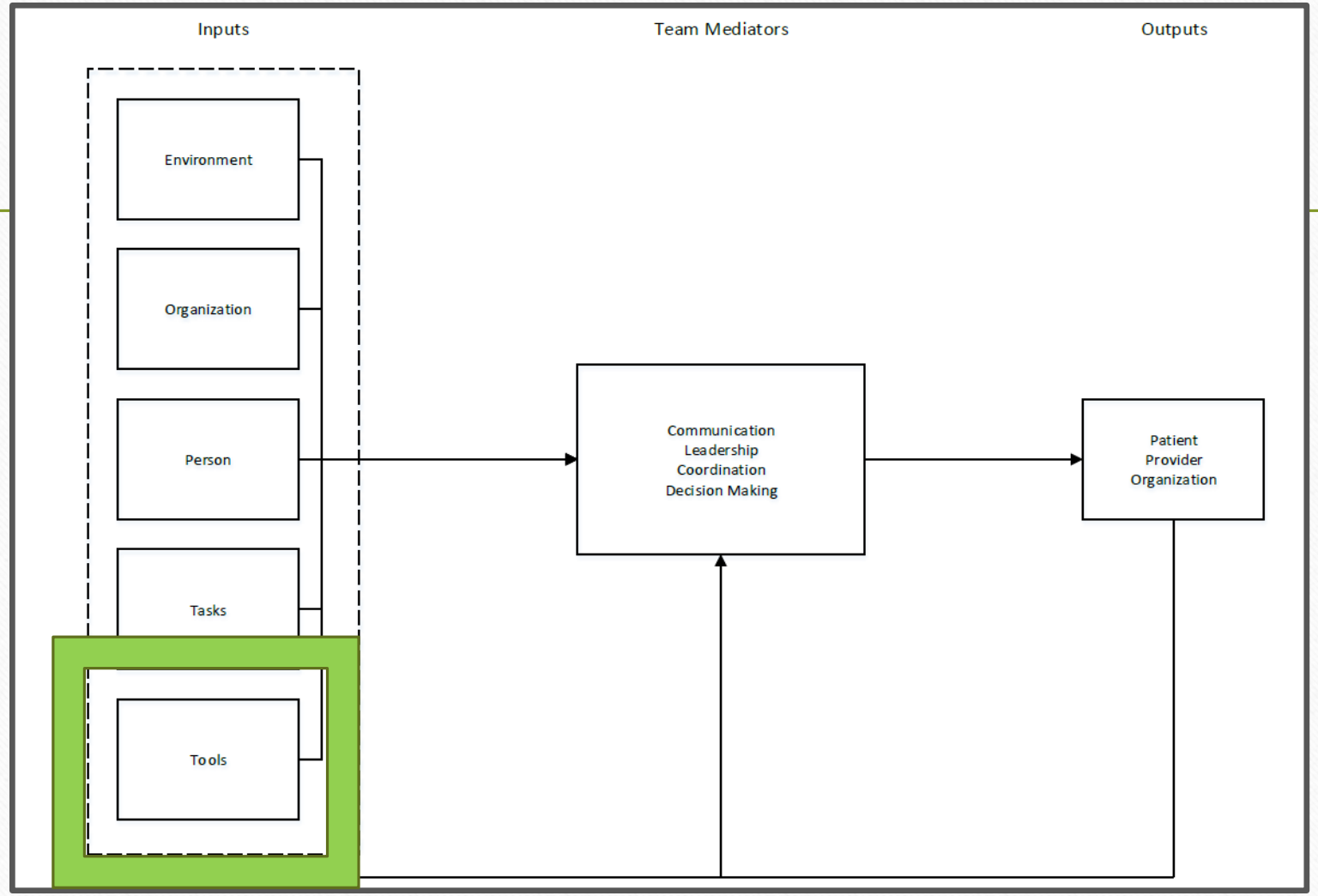
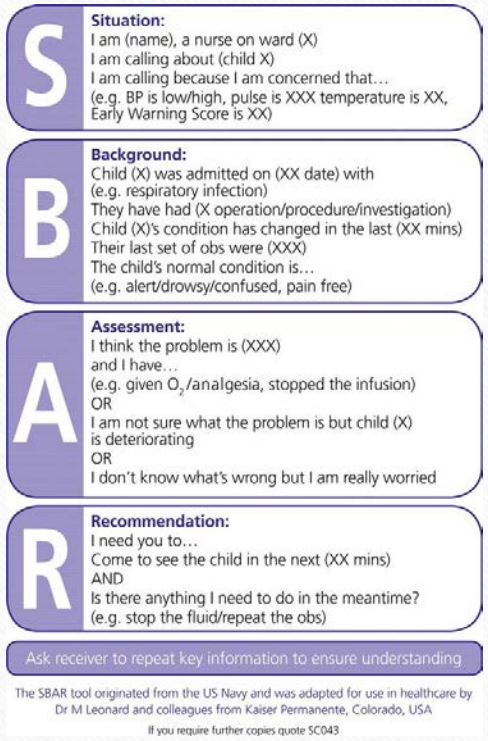


Tools

- The cognitive aids and technologies used to support cognitive work surrounding handoffs
  - Checklists/protocols
  - Mnemonic devices
  - EMRs

Handoff Protocol Examples



S — Situation:
I am (name), a nurse on ward (X)
I am calling about (child X)
I am calling because I am concerned that…
(e.g. BP is low/high, pulse is XXX temperature is XX, Early Warning Score is XX)

B — Background:
Child (X) was admitted on (XX date) with
(e.g. respiratory infection)
They have had (X operation/procedure/investigation)
Child (X)'s condition has changed in the last (XX mins)
Their last set of obs were (XXX)
The child's normal condition is…
(e.g. alert/drowsy/confused, pain free)

A — Assessment:
I think the problem is (XXX)
and I have…
(e.g. given O_2/analgesia, stopped the infusion)
OR
I am not sure what the problem is but child (X) is deteriorating
OR
I don't know what's wrong but I am really worried

R — Recommendation:
I need you to…
Come to see the child in the next (XX mins)
AND
Is there anything I need to do in the meantime?
(e.g. stop the fluid/repeat the obs)

Ask receiver to repeat key information to ensure understanding

The SBAR tool originated from the US Navy and was adapted for use in healthcare by Dr M Leonard and colleagues from Kaiser Permanente, Colorado, USA

If you require further copies quote SC043

I-PASS
BETTER HANDOFFS. SAFER CARE.

I	Illness Severity	• Stable, "watcher," unstable
P	Patient Summary	• Summary statement • Events leading up to admission • Hospital course • Ongoing assessment • Plan
A	Action List	• To do list • Time line and ownership
S	Situation Awareness and Contingency Planning	• Know what's going on • Plan for what might happen
S	Synthesis by Receiver	• Receiver summarizes what was heard • Asks questions • Restates key action/to do items

Flex 11	
Demographics	Age, sex, weight, allergies
Patient Summary	History, chief complaints, diagnosis
Current Issues	Code status, events, condition
Labs and Test	Cultures, labs, tests, results
Medication	Medication, blood products, new medication response
Pulm/CV/Neuro	Pulse, blood pressure, respiratory and mental status
FEN/GI	Fluids, diet, input/outputs, nutrition
Access	Foley, chest tube, IV, Drain
Social	Education needs, requests, family support, primary language
As needed	Surgery details, procedures, consults, evaluation, treatments, clarifying information
Plan	Plan of care and discharge plan

(Adapted from "GP News," by London Ambulance Service, 2015,Copyright 2015 by London Ambulance NHS Trust.; Adapted from "I-PASS, a mnemonic to standardize verbal handoffs," by Starmer et al, 2012, Pediatrics. Copyright 2012 by Elsevier.)

35 Mnemonic Devices

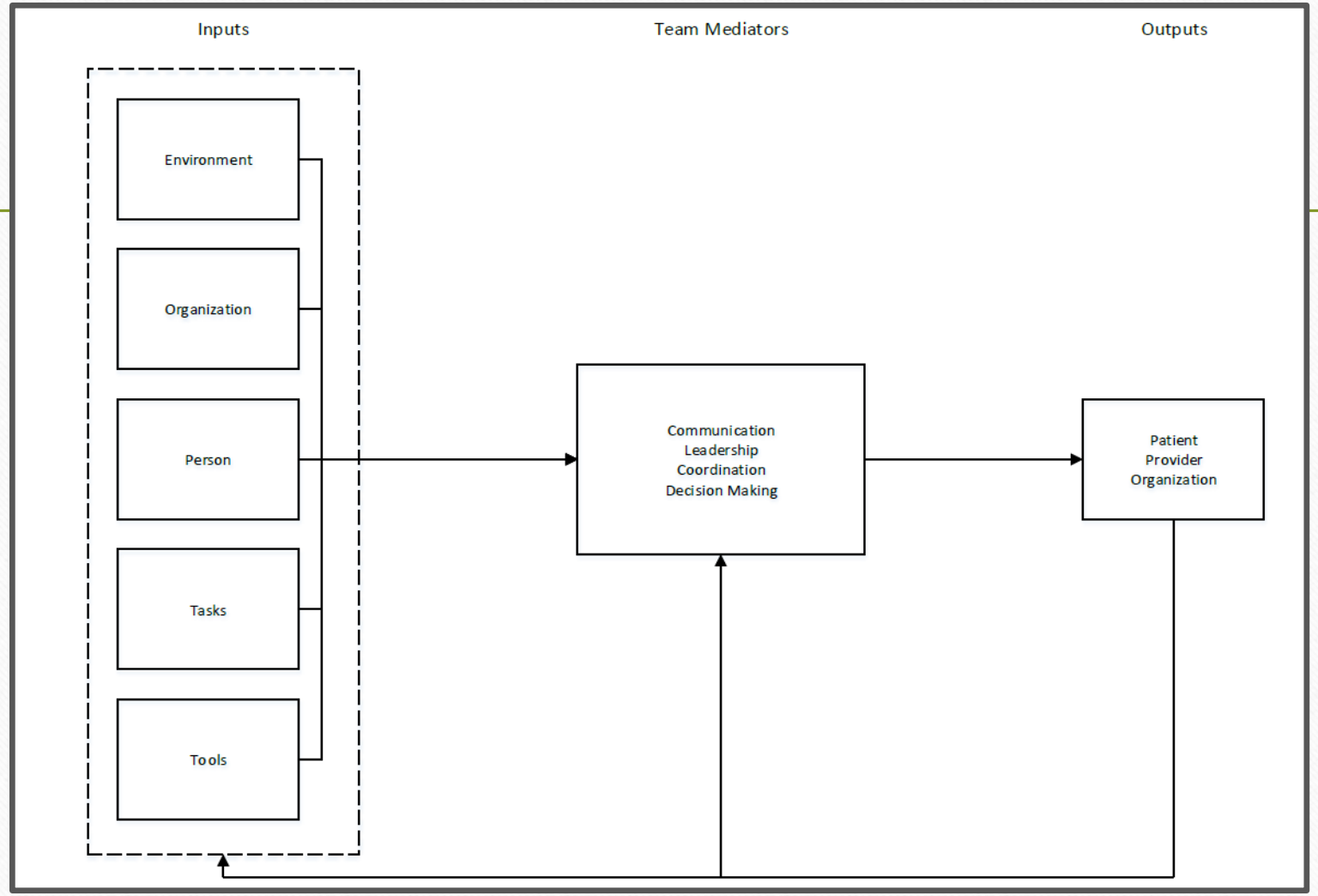
(Riesenberg, Leitzsch, & Little, 2009)

SBAR
IPASS
Flex 11
AIDET
ANTICpate
ASHICE
CUBAN
DeMIST
GRRRR
HANDOFFS
I PASS the BATON
Just Go Nuts
MIST
PACE
PEDIATRIC
I-SBAR
SBARR
SBAR-T
SHARED
SHARQ
SIGNOUT
SOAP
STICC
4 P's
5 P's v. 1 and v. 2

More work needs to be done!

- We need to understand other variables that surround the handoff and how they relate to effectiveness of the care transition
  - Team familiarity
  - Hierarchies and power distance
  - Organizational constraints

IMOI Teamwork Model for Handovers



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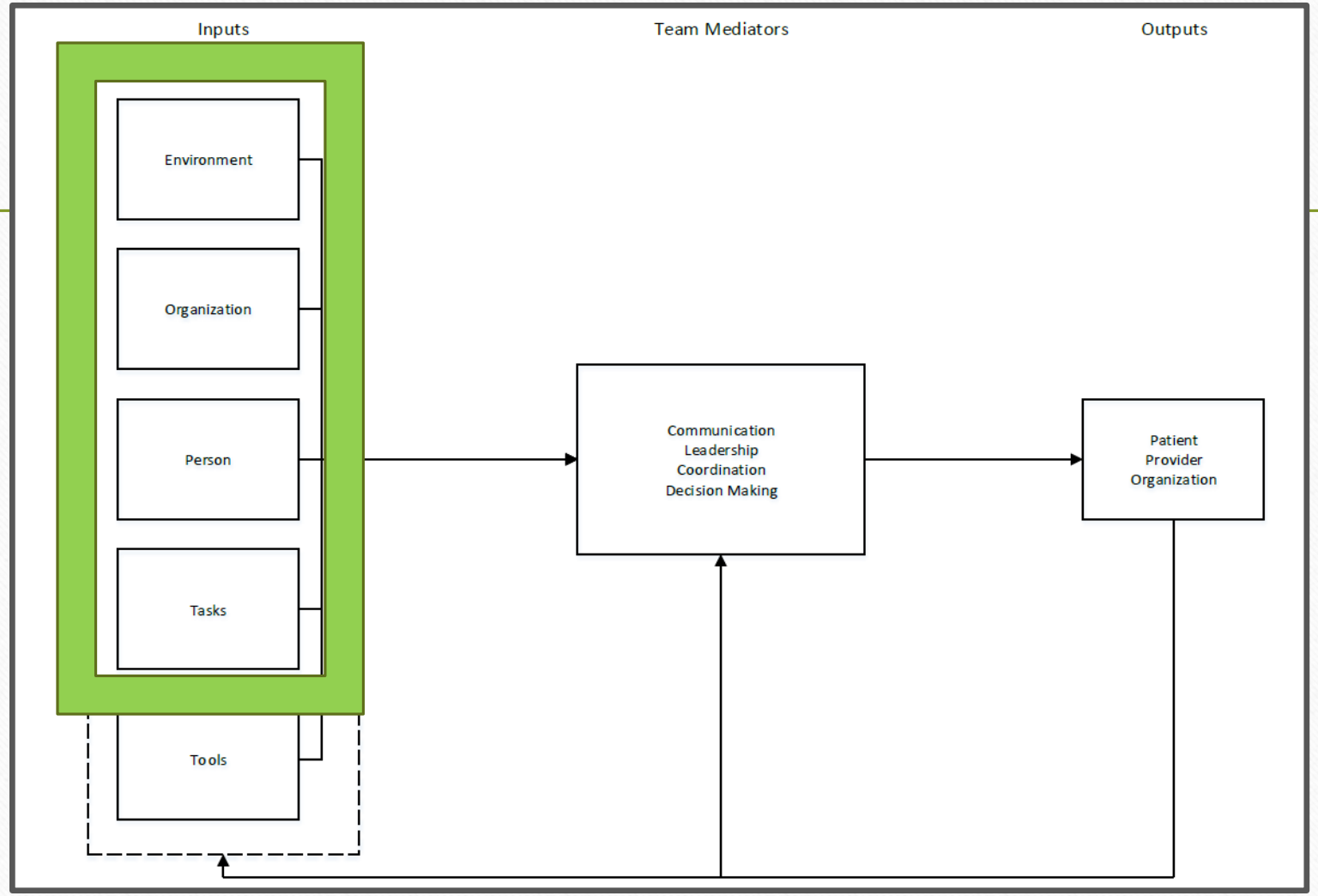
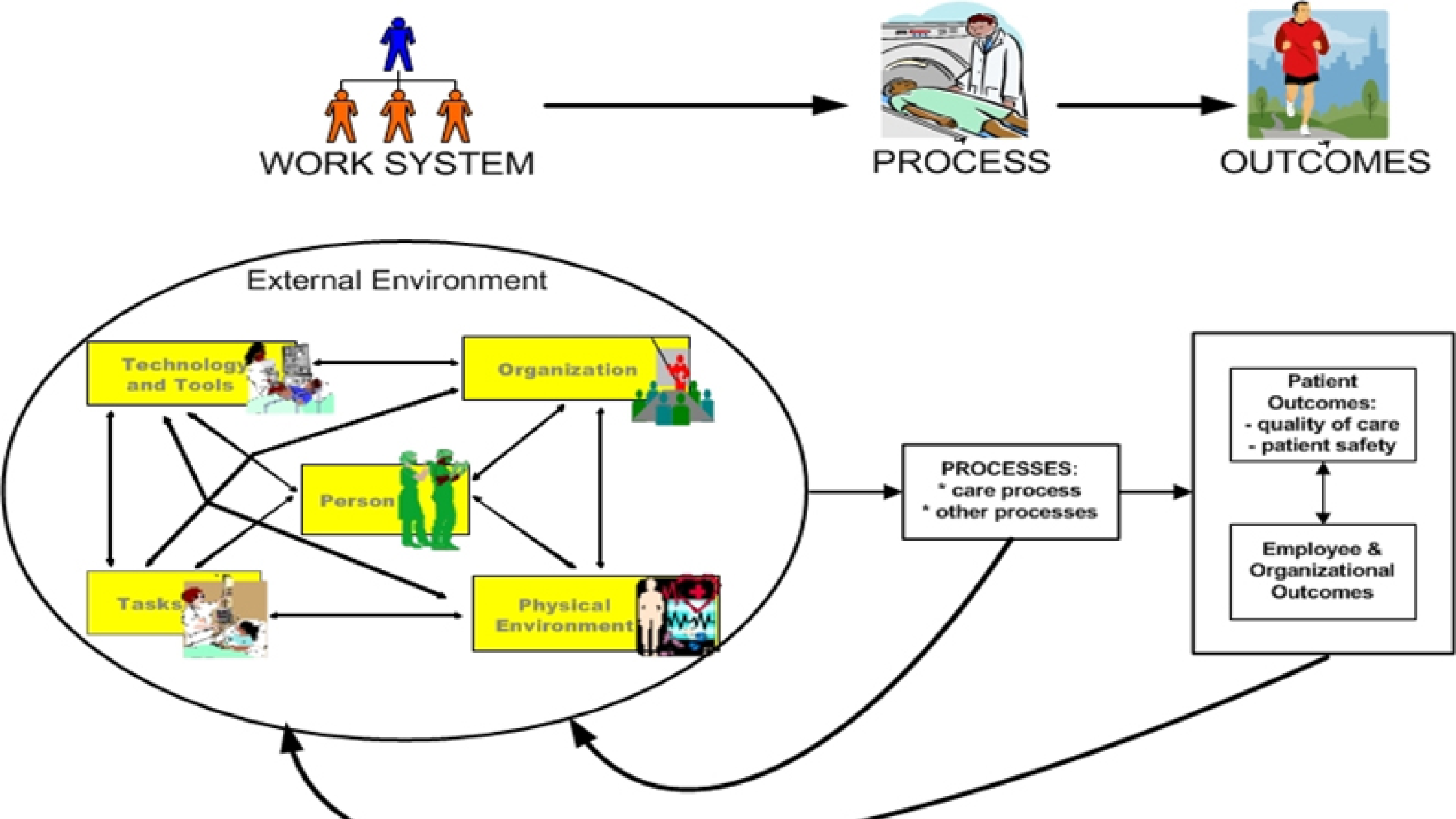


Other Input Variables


WORK SYSTEM
PROCESS
OUTCOMES
External Environment
Technology and Tools
Organization
Person
Tasks
Physical Environment
PROCESSES:
* care process
* other processes
Patient Outcomes:
- quality of care
- patient safety
Employee & Organizational Outcomes

Organization

- Variables that are likely guided by organizational policy and change
  - Handoff audits
  - Handoff education and training
  - Adequate time provided for handoffs

Environment

- Variables that emerge from the busy hospital environment including side conversations, noisy machinery, and alarms
  - Interruptions and distractions should be minimized
  - Consideration should be given to the location

Person

- Variables that are intrinsic to the individuals involved in the handover
  - Interruptions and distractions should be minimized
  - Importance of being present for handover

Tasks

- Variables associated with the complexity, structure, and challenge of various activities conducted throughout one's work
  - Handoff documentation
  - Read back and verbal synthesis
  - Creation of a "to do" list

Team Process Variables

- The actions and behaviors teams use to achieve their shared goal(s)

Coordination

- Organization of the elements of a team to achieve an effective outcome
  - Presence of all team members
  - Read back critical numerical values and acknowledge all critical items
  - Interactive communication
  - Handoff isn't over until receiver is ready

Communication

- Act of sharing information either verbally or non-verbally to update mental models and share system states
  - Handoffs should be clear, concise, and interactive.
  - Use of closed-loop-communication should be present
  - Allow one person to speak at a time
  - Leave time for questioning

Decision Making

- Act of using cues to choose a course of action
  - Ensure a shared mental model is achieved
  - Utilization of team cognition for complex decisions
  - Understanding of patient complexity and severity

Leadership

- Act of providing resources and coaching to ensure a team can reach its goals
  - Establish a tone for blame-free communication
  - Act as a role model to demonstrate mutual respect, role clarity, collaboration, and equality of others' information
  - Understand the importance of shared leadership

Outcome Variables

- Patient
- Provider
- Organization

Areas of Research

- Context/patient specific protocols
- Comparison of protocols to one another
- Creation of protocols “in house” vs use of pre-manufactured protocol