 Съезд
Congress



5-7 сентября 2018 / Санкт-Петербург
September 5-7, 2018 / St. Petersburg



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Optimizing
Interdisciplinary
Teamwork



The Case

42 yo G4P0 at 34 weeks
5'2", 280 lbs, BMI 51
Diabetes, recent DKA
Asthma with ER visit
HTN/Preeclampsia
Renal Insufficiency
Placenta Previa

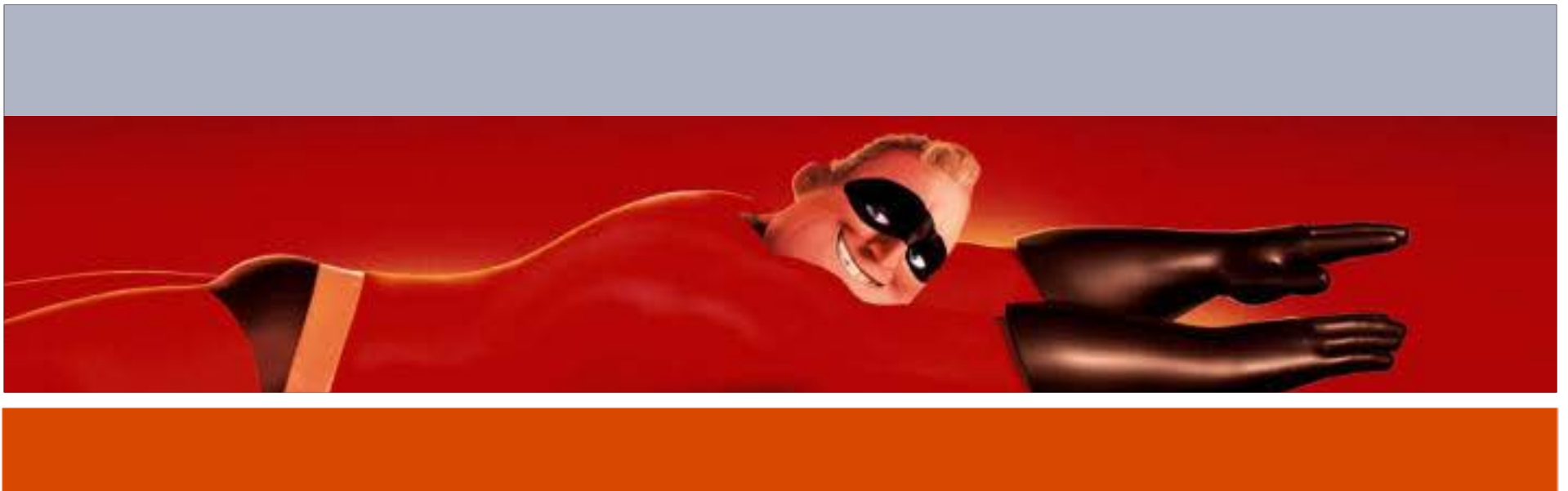
Bathroom, Blood,
Passed Out-
Hit Belly & Head,
Seizing, Bleeding





Teamwork

The combined actions of a group of people to achieve a common goal





What Prevents
Teamwork?

Team Dysfunctions

Absence of Trust

Fear of Conflict

Lack of Commitment

Avoidance of Accountability

Inattention to Results

Patrick Lencioni, 2002

Team Dysfunctions



Present
Approachable
Knowledgeable
Maleable



What
Promotes
Teamwork?





Shared Mental Model
Communication
Situational Awareness
Leadership/Followership
Workload Management
Positive Behaviors and Attitudes

Morgan P, et al. Anesthesiology 2007

Baker DP, et al. Jt. Comm J Qual Patient Saf 2005

Mental Model

Shared Understanding

2 Anaphylaxis

Hypotension, bronchospasm, high peak-airway pressures, decrease or lack of breath sounds, tachycardia, urticaria

START

- 1 **Call for help and a code cart**
 - ▶ Ask: "Who will be the crisis manager?"
- 2 **Give epinephrine bolus** (may be repeated)
- 3 **Open IV fluids and/or give fluid bolus**
- 4 **Remove potential causative agents**
- 5 **Turn FiO₂ to 100%**
- 6 **Establish/secure airway**
- 7 **Consider...**
 - ▶ Turning off volatile anesthetics if patient remains unstable
 - ▶ Vasopressin for patients with continued hypotension despite repeated doses of epinephrine
 - ▶ Epinephrine infusion for patients who initially respond to bolus doses of epinephrine but experience continued symptoms
 - ▶ Diphenhydramine
 - ▶ H2 blockers
 - ▶ Hydrocortisone
 - ▶ Tryptase level: Check within first hour, repeat at 4 hr and at 18–24 hrs post reaction
 - ▶ Terminate procedure

DRUG DOSES and treatments

Epinephrine:	BOLUS: 10–100 mcg, repeat as necessary INFUSION: 1–10 mcg/min
Vasopressin:	1–2 units IV
Diphenhydramine:	25–50 mg IV
H2 blockers:	Ranitidine: 50 mg IV Cimetidine: 300 mg IV
Hydrocortisone:	100 mg IV

Common CAUSATIVE AGENTS

- Neuromuscular blocking agents
- Antibiotics
- Latex products
- IV contrast

Critical CHANGES

- If **cardiac arrest**, go to:
- ▷ CHKLST 4 Cardiac Arrest – Asystole/PEA
 - ▷ CHKLST 5 Cardiac Arrest – VF/VT

Shared Understanding



Common Goals



Identify
Priorities

Anticipate
Needs

Mental Model

Communication

Method

Clear, Closed Loop

Uses Names

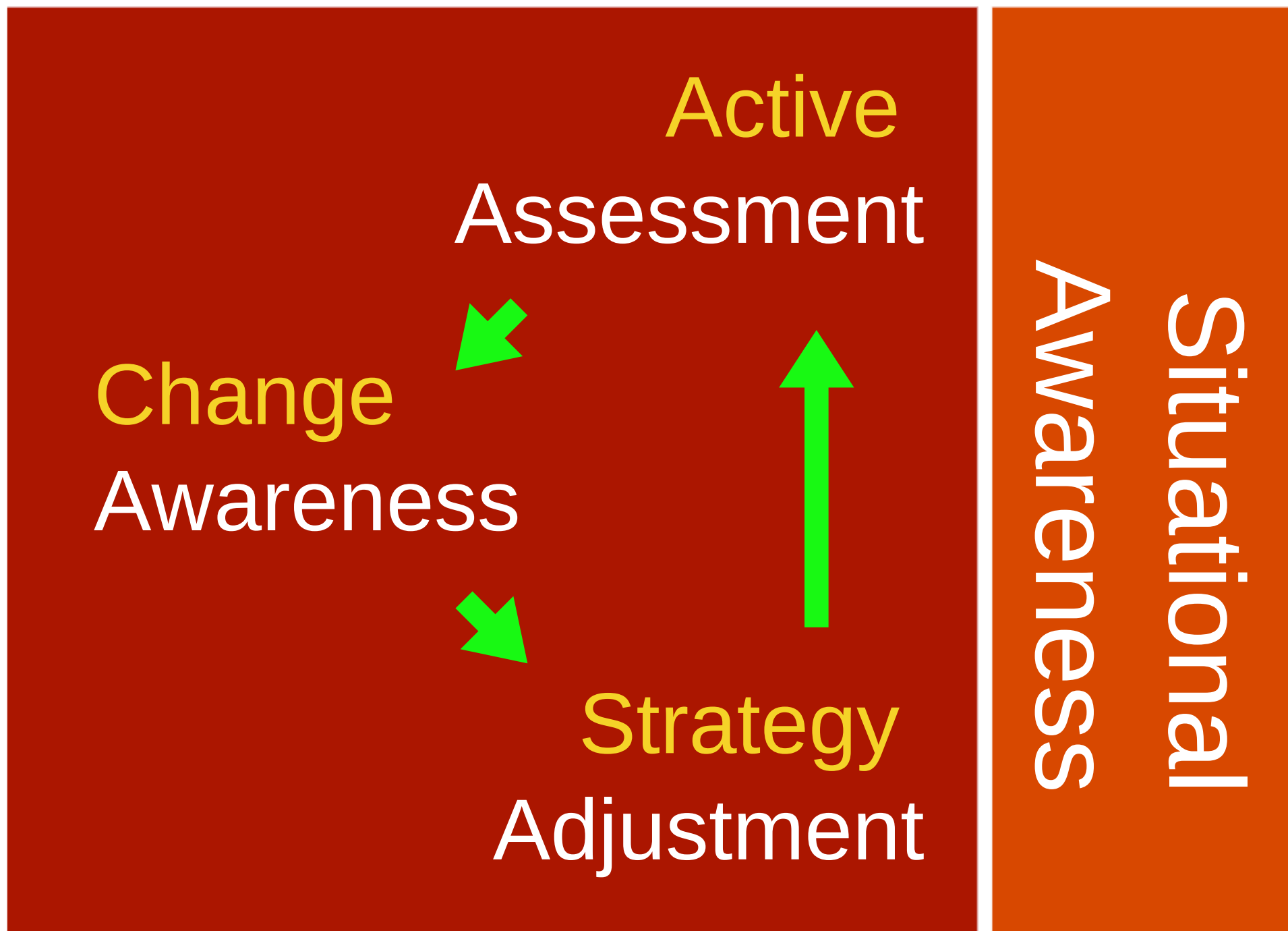
States Issues

Shares Errors

Manner

Assertive but Open

Values Contributions





Role Adopted/Shifted

Assert Decisions

Delegate Tasks

Facilitate
Solutions

Leadership

Roles Adopted

Voice Concerns

Ask for Clarifications

Recommend Options

Follower'ship

Options Identified

Guidelines & Protocols



Followed

Tasks Prioritized



Resources Requested

Workload
Management

Supports
Respects
Values **Answers**
Provides **Assistance**
Avoids Negativity

Behavior
Attitudes



Can
Teamwork Be
Primed?

Shared Mental Model
Communication
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High-fidelity Simulation to Evaluate an Interdisciplinary Teamwork Assessment Scale in Obstetric Crisis Management

34 item Assessment Scale
Establish & Validate
119 Physicians/Nurses,
50 simulations, 2 scenarios

Hoppe, Monks, Windrim, Sharples, Tsen, Balki,
J Obstet Gynaecol Can 2017; Jul; 39(7):523-33

Simulation

High-fidelity Simulation to Evaluate an Interdisciplinary Teamwork Assessment Scale in Obstetric Crisis Management

Simulation

Measure	Scores Real Scenarios (n=42)			
	Overall	Good / intermediate	Poor	p-value
Overall Score	3.7 (0.8)	3.8 (0.7)	2.9 (0.7)	<0.001
Shared Mental Model	3.8 (0.8)	3.9 (0.8)	3.1 (0.8)	0.001
Communication	3.5 (0.8)	3.6 (0.8)	2.6 (0.6)	<0.001
Situational Awareness	3.7 (0.8)	3.8 (0.8)	2.8 (0.8)	<0.001
Leadership	3.6 (0.8)	3.8 (0.8)	2.8 (0.6)	<0.001
Followership	3.7 (0.8)	3.8 (0.8)	3.0 (0.8)	0.004
Workload Management	3.6 (0.8)	3.7 (0.8)	2.8 (0.7)	<0.001
Positive/Effective Behaviors and Attitudes	3.8 (0.7)	3.9 (0.7)	3.3 (0.7)	0.013

Interdisciplinary Board Rounds

Structured **Interdisciplinary Rounding**
as a Method of Improving Teamwork
and Patient Safety in an Academic,
Tertiary care Labor and Delivery Unit

Knowledge, Skills, Attitudes
Reduced Practice Variation
Increased Patient Safety
Increased Teamwork, Respect
Diminished Hierarchy

Chau, Vijjeswarapu, Hickey, Acker, Huang, Tsen
Anesth Analg 2017; Jun 124 (6):1968-77.



Communication

Frequency

Timeliness

Accuracy

Problem Solving

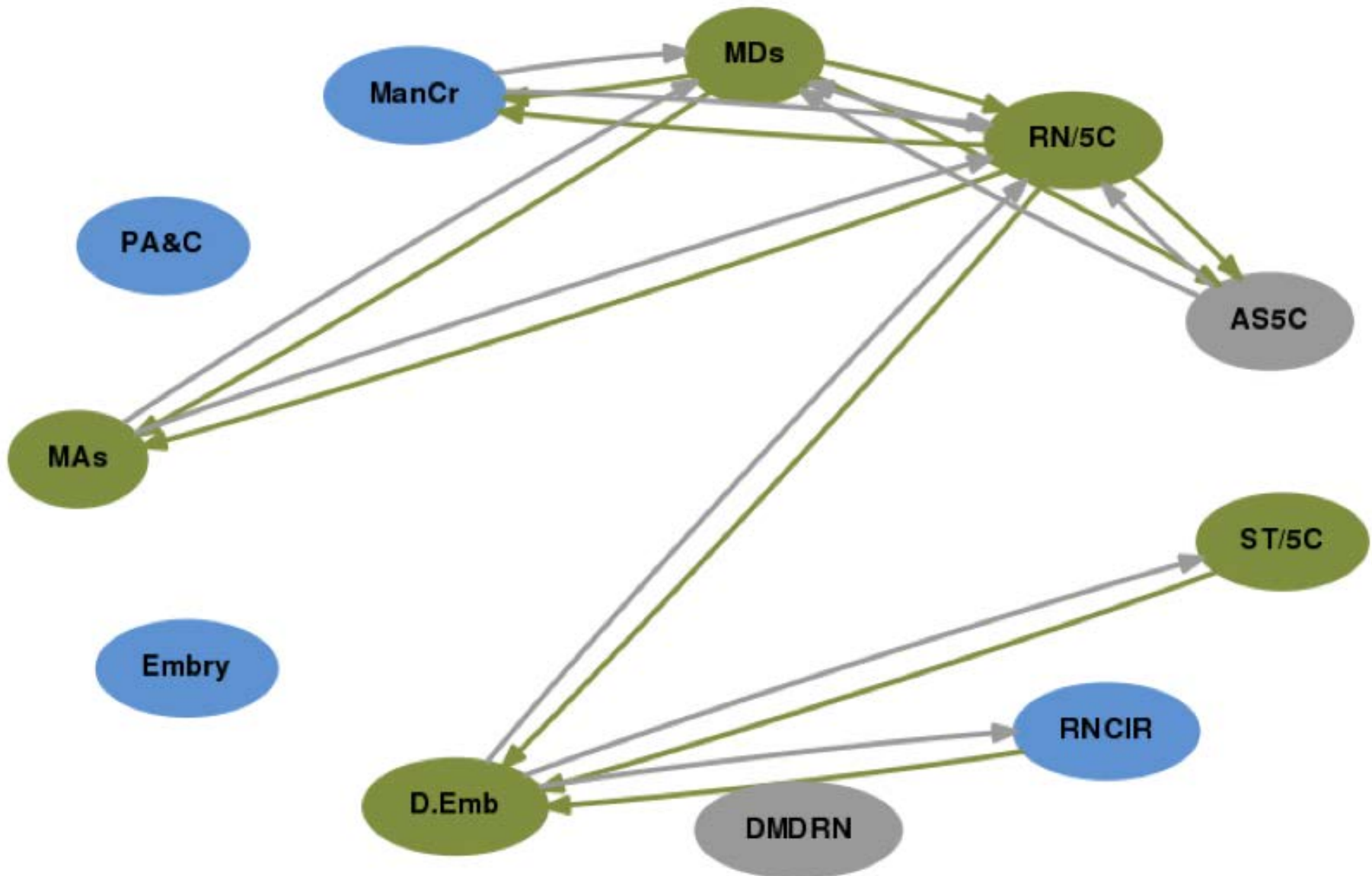
Shared Goals

Shared Knowledge

Mutual Respect

Relational
Coordination

Relationship Strength



Ratings in/between Workgroups

Relational coordination for each workgroup, rated by all other workgroups

RC Dimension	MDs Score	RN/5C Score	AS5C Score	ST/5C Score	RNCIR Score	DMDRN Score	D.Emb Score	Embry Score	MAs Score	PA&C Score	All-Group Score
Frequent Communication	3.84	4.61	4.29	4.61	3.88	4.05	4.02	4.28	4.71	4.11	4.24
Timely Communication	3.52	3.87	3.68	3.68	3.76	3.60	3.46	3.83	3.84	3.63	3.69
Accurate Communication	4.00	3.79	3.78	3.90	3.82	4.08	3.95	4.08	3.89	3.89	3.92
Problem-Solving Communication	3.06	3.34	3.29	3.54	3.15	3.55	3.71	3.61	3.39	3.18	3.38
Shared Goals	3.65	3.84	3.49	3.88	3.71	3.98	3.88	3.94	3.84	3.55	3.78
Shared Knowledge	3.32	3.21	2.78	2.95	3.44	3.68	3.41	3.19	2.92	2.74	3.16
Mutual Respect	3.48	3.74	3.39	3.66	3.62	3.80	3.63	3.67	3.50	3.29	3.58
Relational Coordination	3.55	3.77	3.53	3.75	3.63	3.82	3.72	3.80	3.73	3.48	3.68

Normal 3.5-4
Strong >4

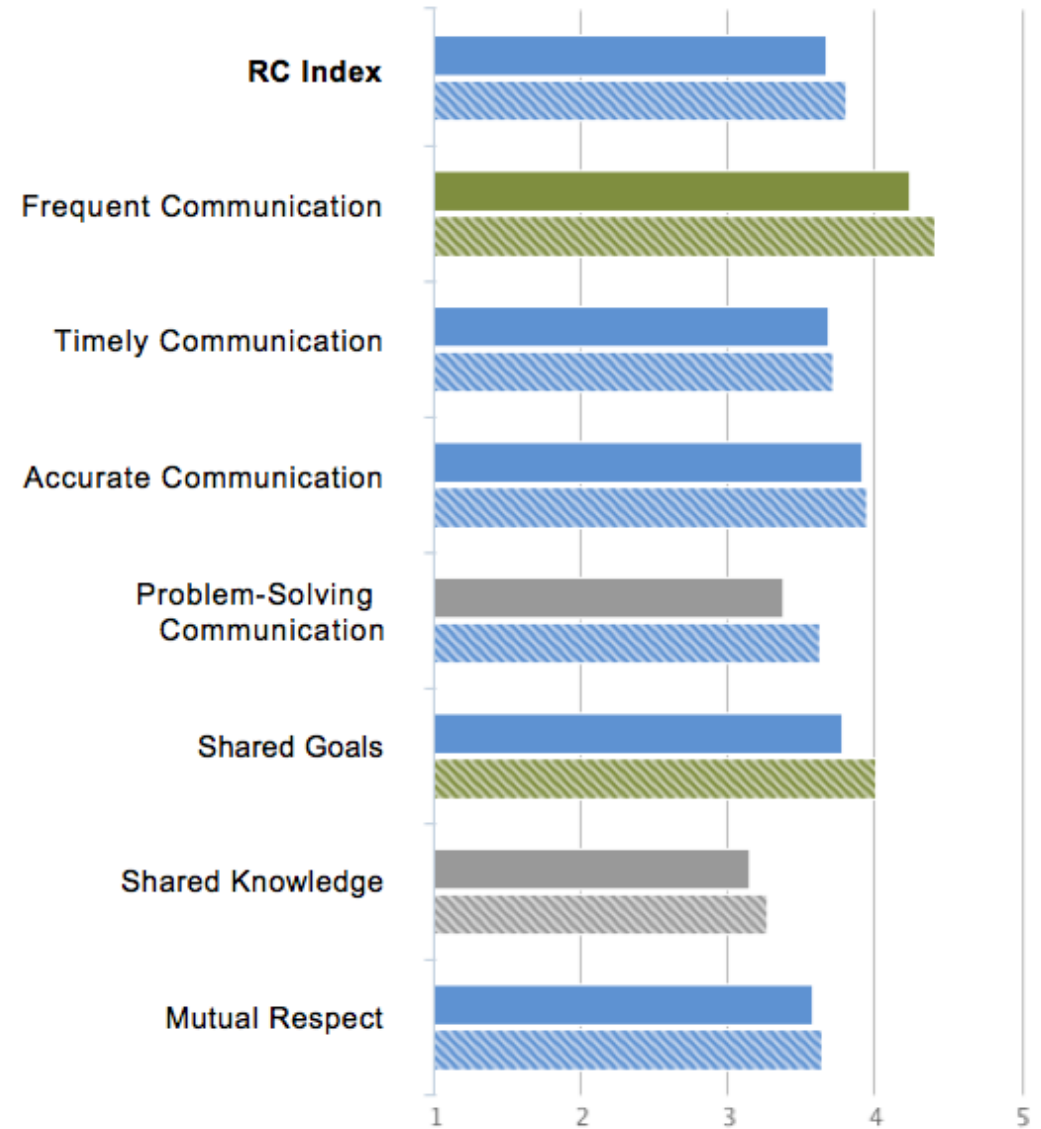
Survey Response

Rate:

Survey 1: 74%

Survey 2: 70%

Between Workgroups

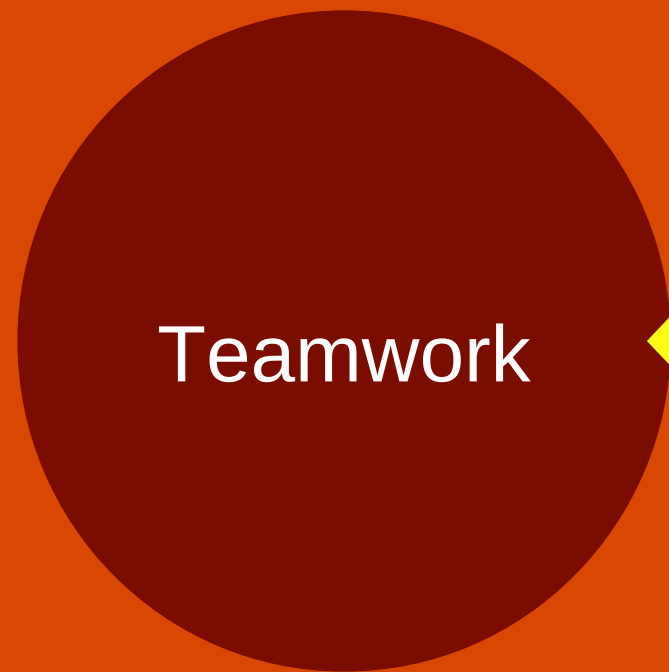


□ Baseline: Teamwork at CIRS/CRM

▨ Follow-Up: Teamwork at CIRS/CRM



Take Home Messages





PREVENT

- ▶ No Trust
- ▶ Avoid Conflict
- ▶ No Commitment
- ▶ No Accountability
- ▶ Result Inattention



PROMOTE

Mental Model
Communication
Situational Awareness
Leadership/Followership
Workload Management
Behavior/Attitudes

Interdisciplinary Teamwork

- ▶ What prevents it?
- ▶ What promotes it?
- ▶ What can prime it?
- ▶ What will **You** do?





вопросов?

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СПАСИБО

