



QUALE FORMAZIONE: SIMULAZIONE E SKILLS NON TECNICHE NEL TRAUMA TEAM

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“ ...medicine is a team sport, with two exceptions: people’s live depend on it and there are no coaches”

A. Gawande



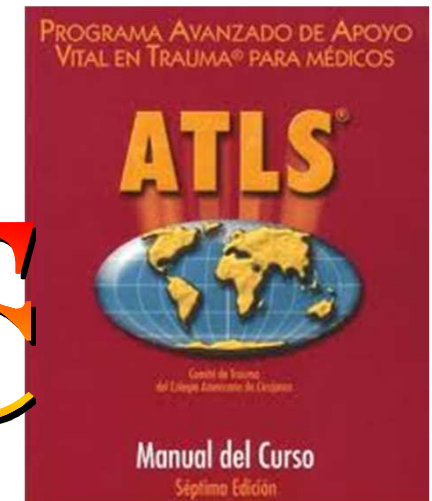
**In sports, when the team loses,
the whole team loses, but in
medicine, ONLY the patient loses**

Target-focused medical emergency team training using a human patient simulator: effects on behaviour and attitude

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Medical Education: 2007; **41**: 173–180
doi:10.1111/j.1365-2929.2006.02670.x

Emergency medicine departments are dynamic, highly hazardous environments.¹ Guidelines for resuscitation (Advanced Cardiac Life Support, ACLS) and trauma care (Advanced Trauma Life Support[®], ATLS[®]) are examples of standardised procedures.² These are used to help the health care teams apply medical knowledge and give the patients the best



**EMERGENCY MEDICINE DEPARTMENT AND
PREHOSPITAL SETTING
ARE DYNAMIC HIGHLY HAZARDOUS
ENVIRONMENTS**

Performance and consistency of care in admitted trauma patients: our next great opportunity in trauma care?

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46.2%. Mean ISS was 12 and 64 patients had an ISS ≥ 16 . Error-free care was delivered in 145/236 (61.4%). There were 145 errors in 91 patients (38.6%). Errors in judgement and delays in diagnosis accounted for 56/145 (38.6%) and 48/145 (33.1%), respectively. Errors occurred most commonly in the Emergency Department (ED) (48.3%), and trainees from all specialties were responsible for 67.5% of errors. There were 25 near misses detected. Three patients developed major sequelae or complications from errors. One of 13 deaths was deemed potentially preventable.

This study has shown that while 61.4% of admitted trauma patients receive error-free care,

Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine

Original research

Leadership is the essential non-technical skill in the trauma team - results of a qualitative study

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that the preventable death rate declined to 15% after systems improvement [3]. Chiara and colleagues found that 43% of deaths caused by trauma were possibly preventable. They also found that over 50% of trauma patients received inappropriate treatment in hospital [4] A quite



Current Concepts in Simulation-Based Trauma Education

Robert A. Cherry, MD, FACS, and Jameel Ali, MD, MMedEd

TEAM TRAINING

The complexity of trauma care and its highly multidisciplinary nature demand that providers be able to function as teams. The Joint Commission on Accreditation of Health Care Organizations reported that two-thirds of the nearly 2,000



SYSTEMATIC ASSESSEMENT OF THE PATIENT USING A ORIZONTAL TEAM STRUCTURE



**To convert a team of experts
into an expert team**



The trauma team is a complex organisation which has to work smoothly in stressful situations. The number of team members and the condition of the traumatized patients create great challenges for the trauma team. In Norwegian hospitals the trauma teams do not have fixed members, thus members attending the team may vary

Developing Expert Medical Teams: Toward an Evidence-based Approach

Rosemarie Fernandez, MD, John A. Vozenilek, MD, Cullen B. Hegarty, MD, Ivette Motola, MD, MPH, Martin Reznick, MD, MBA, Paul E. Phrampus, MD, Steve W.J. Kozlowski, PhD

The practice of emergency medicine (EM) involves the management of complex patients in a dynamic and often uncertain environment. Emergency teams perform multiple concurrent tasks during times of high workload. In addition, several areas of EM are recognized as extremely high risk with regard to patient safety and medical errors.^{1,2} EM teams combine


Toward a Definition of Teamwork in Emergency Medicine

Rosemarie Fernandez, MD, Steve W. J. Kozlowski, PhD, Marc J. Shapiro, MD, Eduardo Salas, PhD

THE NATURE OF TEAMS AND TEAMWORK

Over 50 years of psychological research demonstrates that teams collectively possessing high levels of experience, medical knowledge and give the patients the best standard of care in high-stake environments. Despite having sufficient knowledge, skills training and resources available, teams managing cardiac arrest were unable to follow the guidelines successfully.³⁻⁵ The major obstacles were poor leadership and lack of explicit task distribution. In contrast, the presence of clear leadership in the emergency room has been shown to lead to improved adherence to the ATLS® framework and more rapid formulation of definite plans.⁶ In order to avoid human errors and mitigate those errors that occur, medical authorities have advocated structured team training to be introduced into health care education.⁷

... skill sets that require coordinated events.³ In such success depends not only also on the ability of the team to function in a coordinated, effective manner.⁴ Developing team skills is



Non-technical skills can be defined as behaviours in the operating room environment not directly related to the use of medical expertise, drugs or equipment. They encompass both interpersonal skills e.g. communication, teamwork, leadership, and cognitive skills e.g. situation awareness and decision making. [8] Leadership can be defined as the process of influencing the activities of an individual or a group in efforts of goal accomplishment[9].

CRM

The failure of teamwork skills is a significant cause of adverse patient events in health care.

Teamwork is not a natural product of working together and does not simply happen.

Teamwork must be learned and practised.

CREW RESOURCE MANAGEMENT or CRISIS RESOURCE MANAGEMENT ?



≠ ?



Emergency Medicine Crisis Resource Management

Segue il modello dell' Anesthesia Crisis Resource Management (ACRM) derivato dall'esempio dell'aeronautica

Gli eventi critici sono differenti, ma le abilità richieste per la gestione sono simili



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J Trauma. 2008;65:1186–1193.

Hunt and coworkers noted a number of characteristics that are associated with high-performing teams:

Situational awareness: Team members assess their environment continuously and share current information that allows for effective decision making.

Leadership: Strong leaders' values input from all team members and take in and process their situational awareness.

Followership: Nonleader members understand their role and contribute to the team's function by verbalizing observations and changes in their environment.

Closed loop communication. Ensures that a message was sent, understood, and acknowledged by the recipient.

Critical language and standardization practices: The use of catch phrases unique to an organization that requires a specific action or response.

Assertive communication. The ability of a team member to be able to speak up, get the attention of other members of the team, and communicate a problem.

Adaptive behaviors. Flexibility as necessary to optimize team function, such as requesting assistance, active monitoring each other's performance, and taking the initiative to provide backup or assistance to other members.

Workload management: Proper allocation and prioritization of tasks that avoid work overloads and minimize nonessential activities.

Debriefing: The process of reviewing a real event or simulation to develop lessons that may be learned.

STRONG TEAMWORK SKILLS

Table 1 Emergency medicine crisis resource management (EMCRM)

Teamwork competencies

1. Knowledge of the environment
2. Anticipation of and planning for potential problems
3. Assumption of leadership role
4. Communication with other team members
5. Distribution of workload/delegation of responsibility
6. Attention allocation
7. Utilisation of information
8. Utilisation of resources
9. Recognition of limitations/call for help early enough
10. Professional behaviour/Interpersonal skills
11. Overall team leadership skills

EMERGENCY CRISIS RESOURCE MANAGEMENT (EMCRM)

**Focusing on basic processes
underlying Teamwork, is used to
determine Team coordination
skills**

contingency planning in the form of rapid airway algo-
rithms, hospital disaster protocols, and surge capacity
plans. Probably more important to emergency teams is
the ability to immediately react to an unanticipated event
or change in patient condition by altering the current
treatment plan or protocol. This reactive SF contributes
to team adaptability, or the ability to recognize devia-
tions from expected patient responses, and adjust clinical

COME SI LAVORA IN TEAM?



E' UN BUON TEAM?

**LEADERSHIP,
COORDINATION OF CARE
EFFECTIVE COMMUNICATION
ARE ESSENTIAL SKILLS
FOR THE TRAUMA TEAM**

TEAM BUILDING SKILLS

SIMULAZIONE

Adults learn best when they are actively engaged in the process, participate, play a role and experience not only concrete events in a cognitive fashion, but also transactional events in a emotional fashion

"Simulation is a **technique**, not a **technology**, to replace or amplify **real experiences** with **guided experiences**, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion. “Immersive” conveys the sense that participants have of being immersed in a task or setting as they would if it were the real world."

David Gaba 2004

Simulation: ADVANTAGES

- Risks to patients and learners are avoided
- Undesired interference is reduced
- Tasks/scenarios can be created to demand
- Skills can be practised repeatedly
- Training can be tailored to individuals
- Transfer of training from classroom to real situation is enhanced



Simulation facilitates learning through

Immersion
Reflection
Feedback
Practice

derlying cause is known and the clinical decisions that are made can be validated against best practices. Irrespective of the type of simulation used for a given situation, the instructor has the capability to record observations and then provide a debriefing, which is considered a major part of the educational experience.⁴ These debriefing sessions provide an opportunity for instructors and peers to critique the participant's performance. In some cases, video recording is used as an adjunct in this process.



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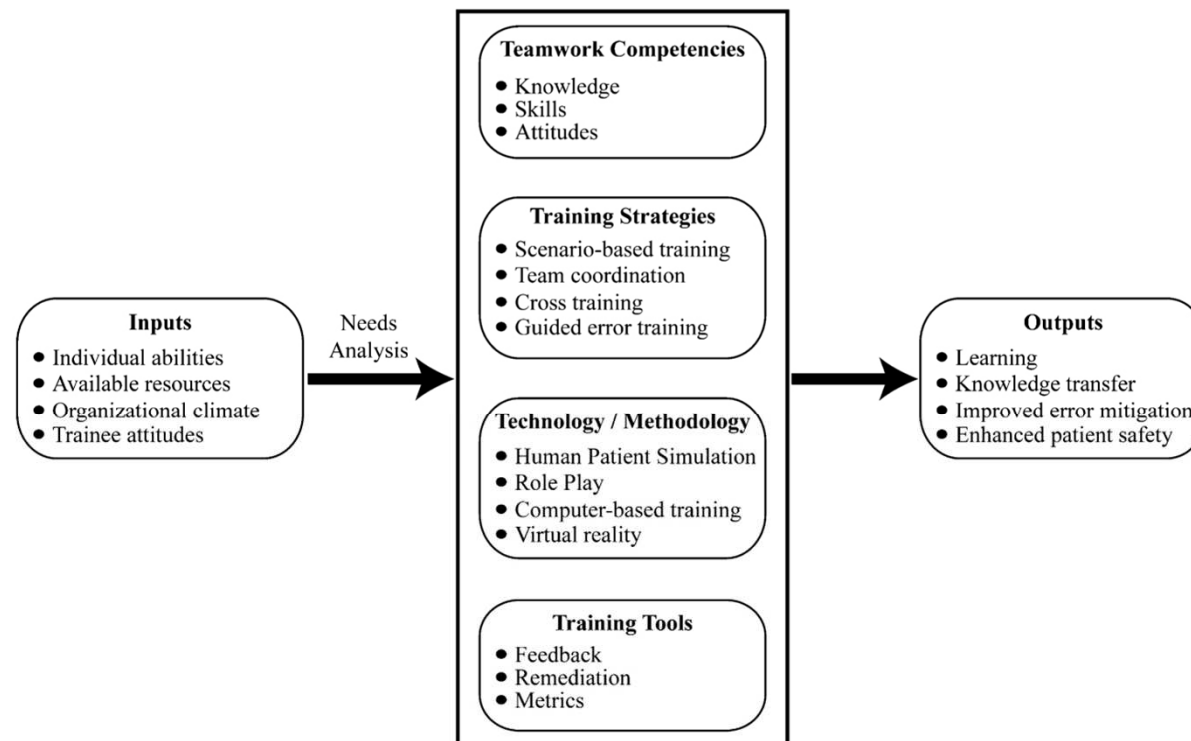


Figure 2. Team Training Model.

SBAGLIANDO SI IMPARA...

AI LORO LASCIATEMI

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GRAZIE...

