Erasmus MC
University Medical Center Rotterdam

Sophia Children's Hospital

Workshop
Creating situational awareness with Crew Resource Management

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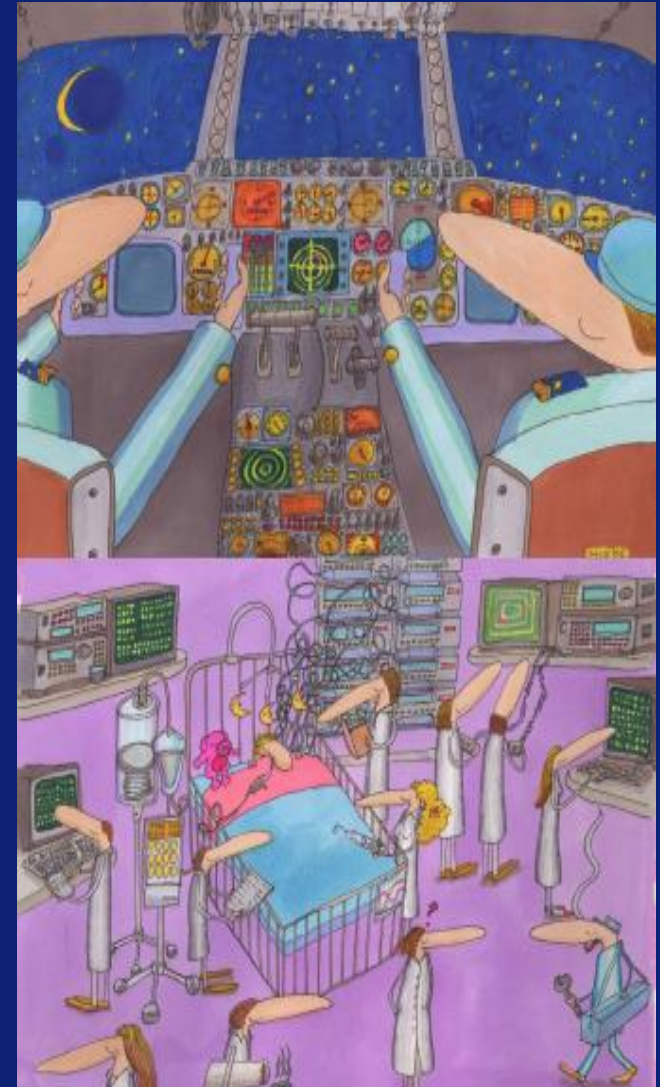
Aim workshop:

- Understanding CRM principles and teamwork training

- How to make teamwork training an ongoing process

- How to determine what is needed to improve teamwork

Crew Resource Management

From the world of aviation

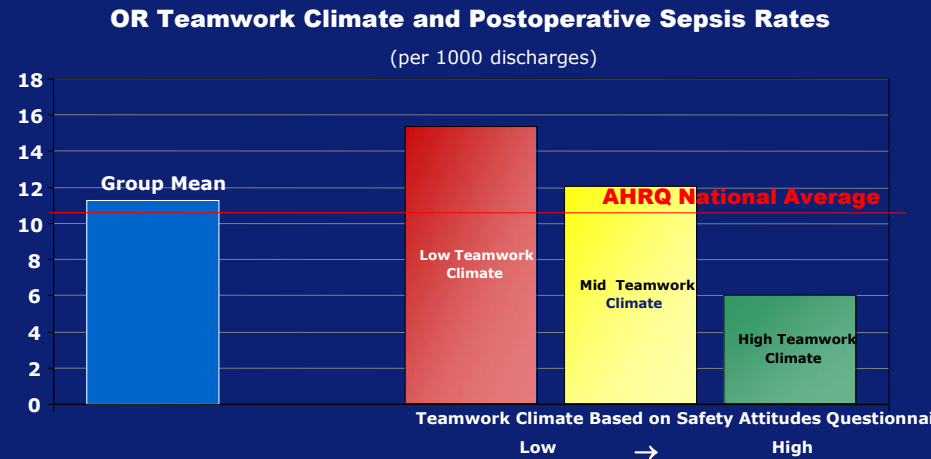Insufficient communication and teamwork among team members contributed to causing incidents in 70% of cases
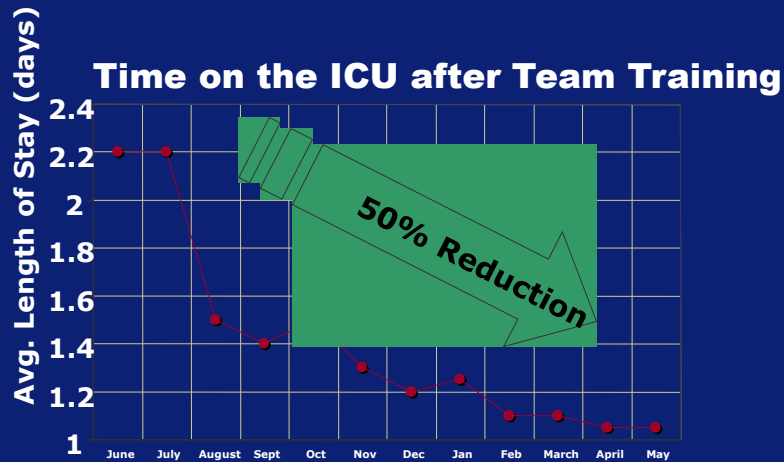
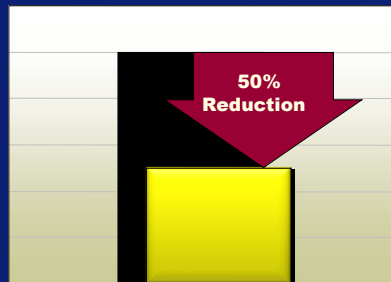Awareness/training of team members a significant improvement

"A Team of experts does not make an expert team"

(Burke et al. 2004)

Teamtraining works!
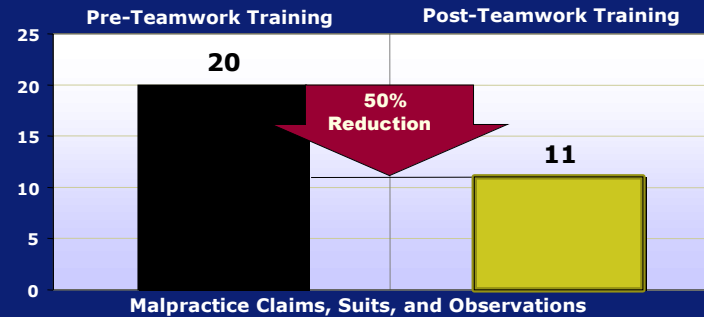
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Time on the ICU after Team Training

Avg. Length of Stay (days)

2.4	
2.2	
2	
1.8	**50% Reduction**
1.6	
1.4	
1.2	
1	

June | July | August | Sept | Oct | Nov | Dec | Jan | Feb | March | April | May

OR Teamwork Climate and Postoperative Sepsis Rates

(per 1000 discharges)

18	
16	
14	
12	**Group Mean** — **AHRQ National Average**
10	
8	**Low Teamwork Climate**
6	**Mid Teamwork Climate**
4	
2	**High Teamwork Climate**
0	

Teamwork Climate Based on Safety Attitudes Questionnai

Low → High

Adverse Outcomes

50% Reduction

Indemnity Experience

Pre-Teamwork Training **Post-Teamwork Training**

25	
20	**20**
15	50% Reduction
10	**11**
5	
0	

Malpractice Claims, Suits, and Observations

Problems in healthcare:

Situations are:

- Sudden

- Unexpected

- Hazardous to the patient

Contributing factors:

- Time constraints

- Stress

- Insecurity

- Team processes

- Organizational flaws

What is needed to improve teamwork?

- Training (CRM, simulation)

- Knowledge of systems approach of errors (why do things go wrong?)

- Inventory of (near-)incidents and risks that threaten teamwork

- Using this info to select goals and devise improvement plans

Crew Resource Management

What is it?

- with a view on <u>integrated 'team situational awareness'</u> ,

- as a basis for solid decision-making and well-considered <u>coordination of efforts</u> , and

- as part of the <u>professional standard</u>

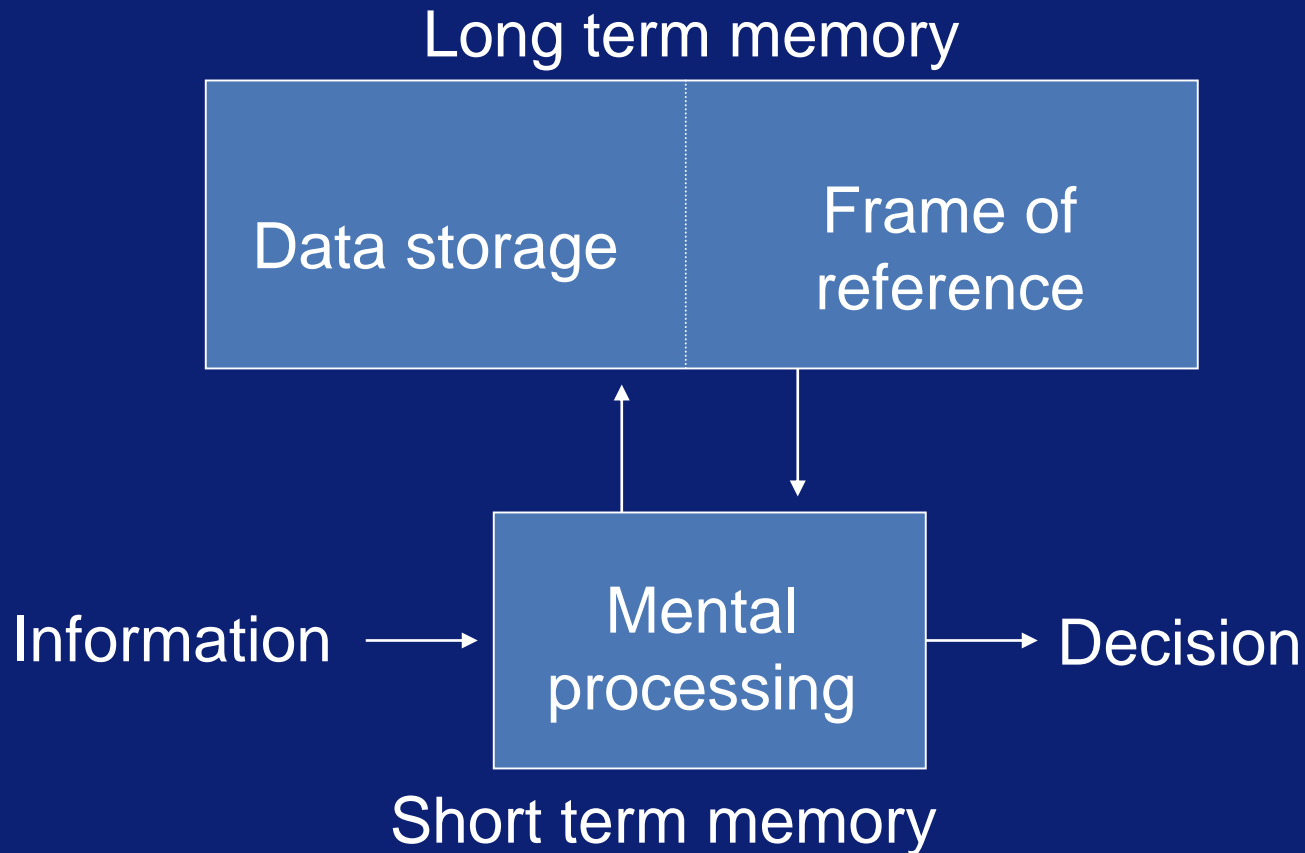- the ambition to reach <u>optimal exchange of information</u> between team members

In practice:

The effective use of all available resources within the team and in the working environment (team members, equipment and ancillary facilities) that enables the team to work safely and efficiently…

Elements CRM- training :
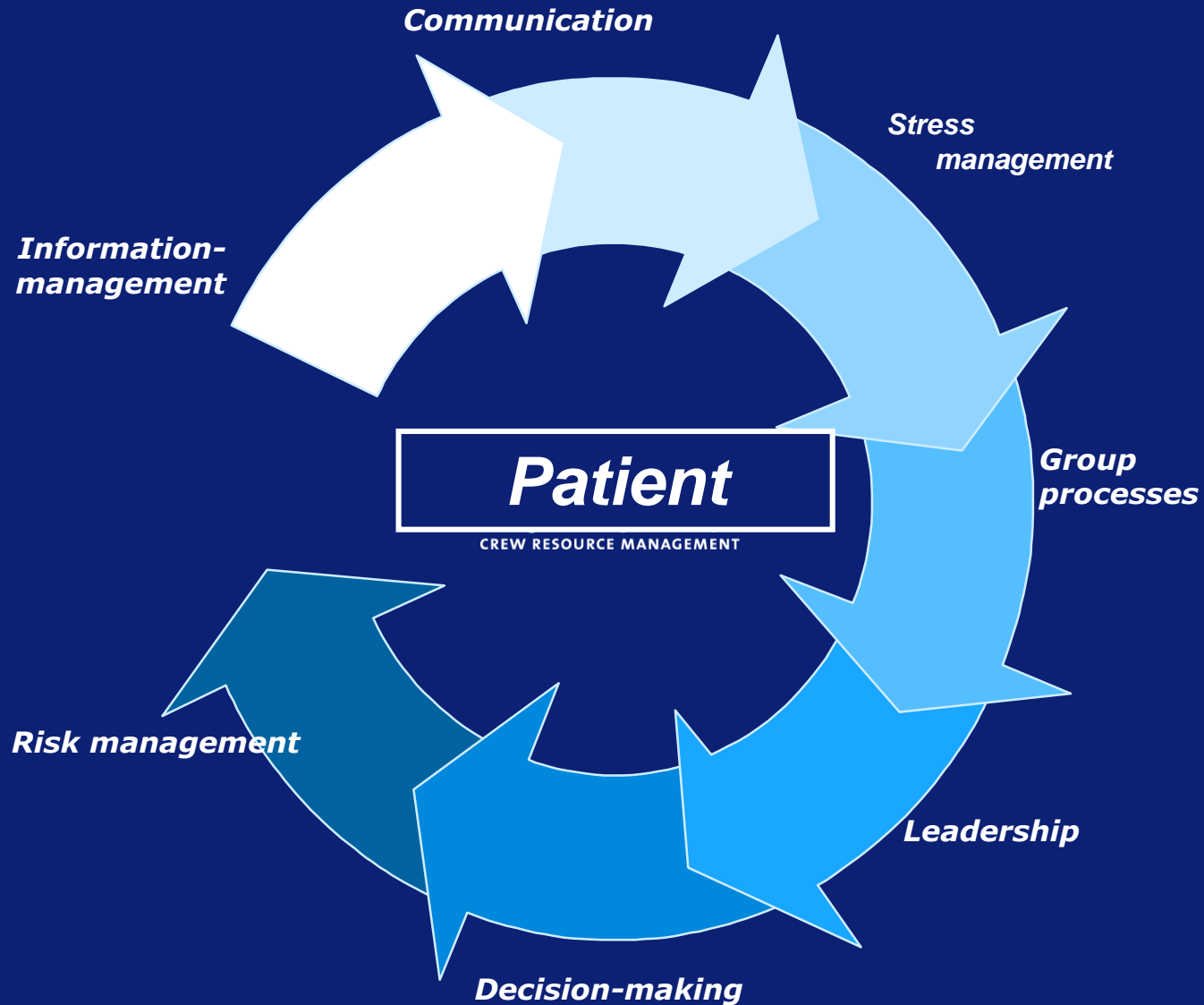
Situational awareness is an interpretation of the world around us and is no more than a *MODEL* of reality: *NOT* reality itself! Thus there is always a risk of errors or lacunas!

Information management: situational awareness

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Long term memory

Data storage	Frame of reference

Information → **Mental processing** → Decision

Short term memory

Information processing:

Effective communication

- Effective communication is goal-oriented

- Within CRM: aimed at creating and maintaining (team) situational awareness and performing activities

- The basis for making the right decision in an unexpected situation

Stress management

- Planning and preparation

- Compliance with protocols and checklists

- Team discussions

- Postpone unimportant things

- Be clear and honest

- If you have stress, please do tell!

Group processes

- Becoming aware of the effects of being a group member on one's own behavior and that of others

- Recognizing group effects

- Recognizing/preventing group thinking
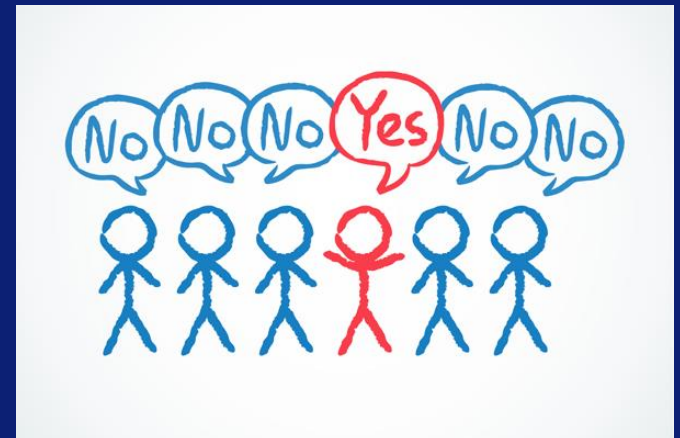
Leadership

- Effective leadership

- Good followership

- Leadership models:

    Situational leadership

    Daily leadership

- Team leader tasks

- Personality and individual differences

Effective leadership

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Features of effective leadership

- Setting goals

- Steering of activities

- Supporting, motivating, stimulating

- Providing feedback

- Making decisions

- Considering task requirements, individual needs, and group needs

Decision-making

- How optimal decision-making is achieved

- How decision-making proceeds under time pressure/stress

- Recognizing risks for the decision-making process

Risk management

- Tailored for each department / unit / hospital

- Monitoring risks through:

  - Blame free reporting of (near-)incidents

  - Assessing protocol violations

  - Multidisciplinary meetings

  - Monitoring adverse events

- Stimulating information updates in reports, newsletters, etc.

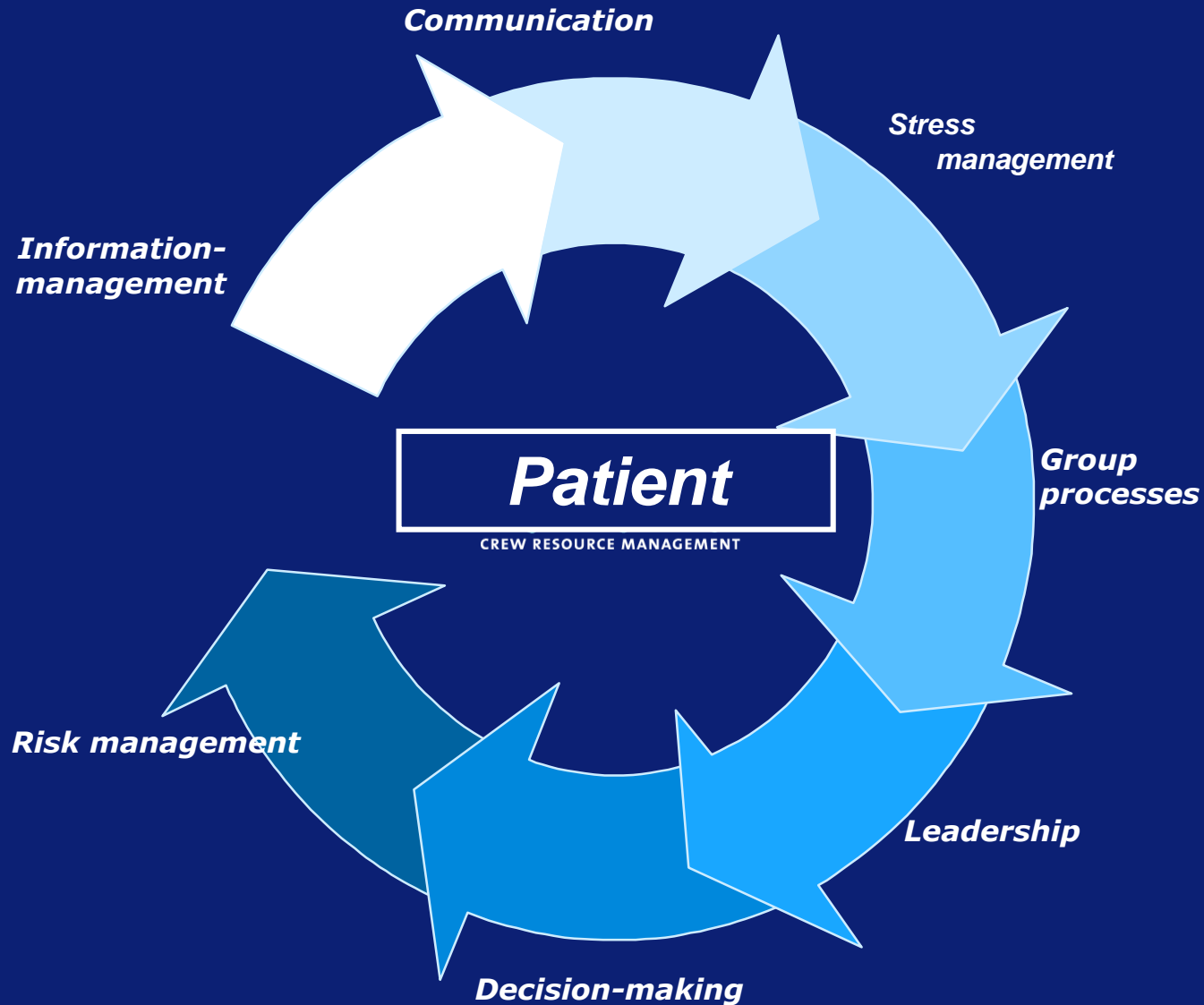# Quality and Patient Safety Management
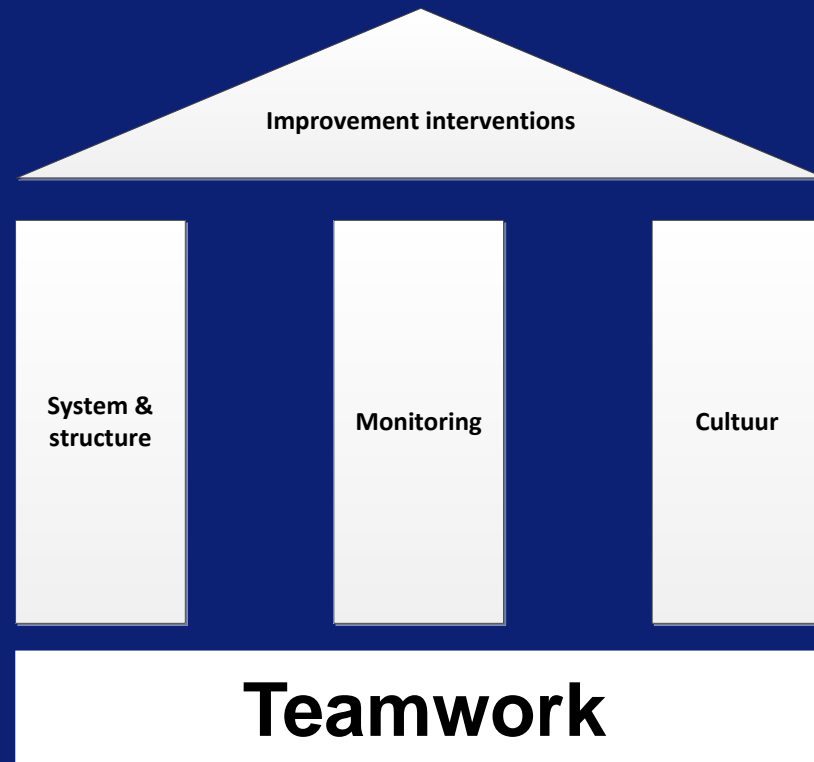
Who's in the team?

"What is the matter?"

"What matters to you?"

Elements CRM- training :

Turn training activities into an ongoing process

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- CRM basic training (2 days)

- CRM advanced training (every 2 years / 1day)

- Team simulation training (yearly / 1 day)

Safety Climate indicator: Safety Attitudes Questionnaire

Assignment

For each table:

Organise your team

Identify CRM elements in "Just an oridnary day" (movie)

Write down 3 "tops" related to CRM items: what went extremely well?

Write down 3 "tips": what should be improved/changed?

Come up with 3 recommendations to prevent this "never event"

Creating teams

1. Choose one of the colored cards on your table

2. Search the table with that color

3. Organise your team

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Plenary feedback

Top 3 recommendations:

Why?

How?

….

recommendations

- standard operating procedures and guidelines (stressmanagement)
- ensuring valid and up-to-date training (teamtraining)
- effective communication (communication, decision making, leadership)
- medication safety (6 R's, TOP)
- patient engagement

Thank you for your attention!

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