

Simulation training in (prehospital) emergency medicine



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Certifications



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What we are planning to do today...



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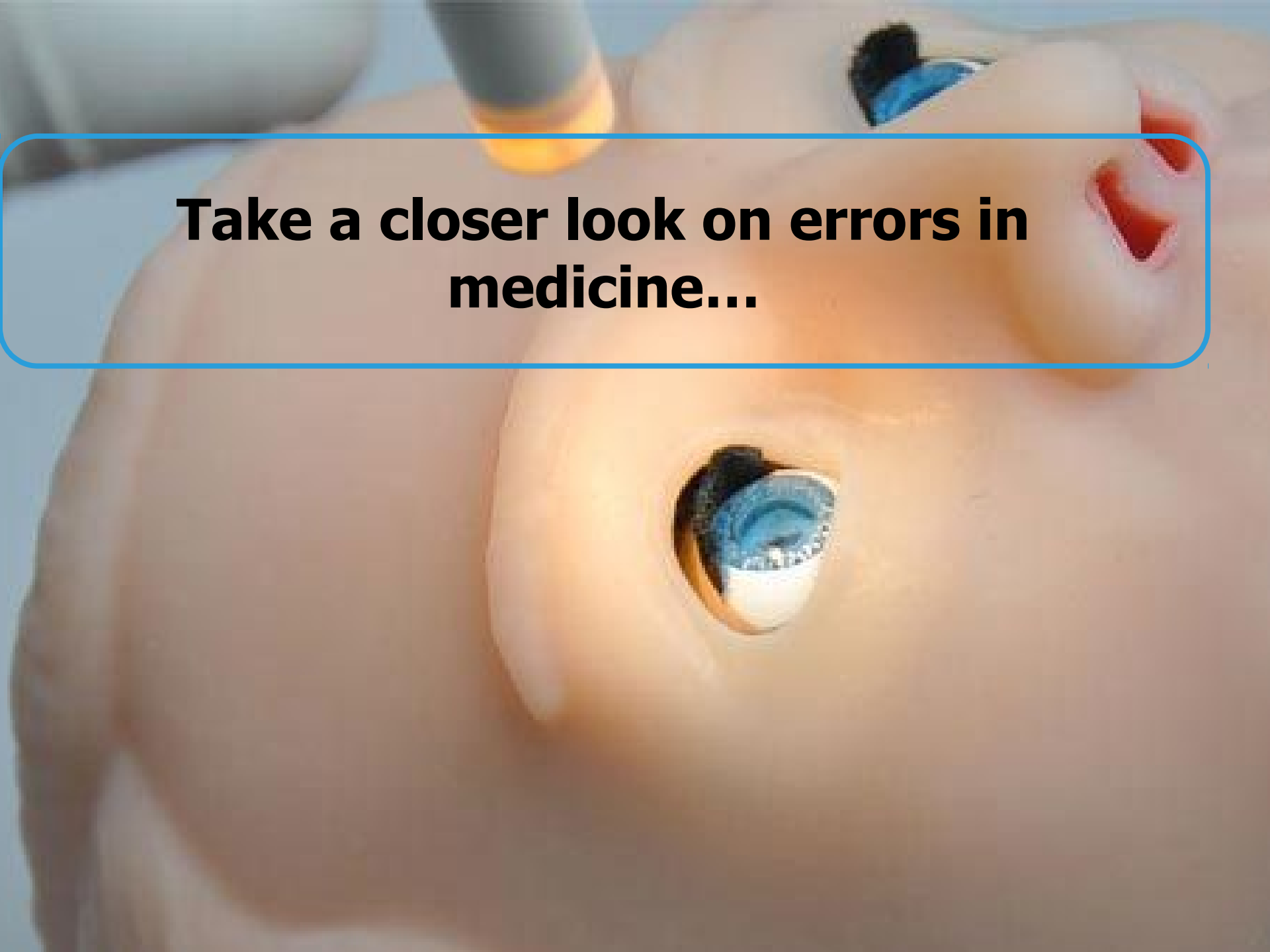
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Why simulation training could make sense in (prehospital) emergency medicine





**Take a closer look on errors in
medicine...**



Among the 10 most common causes of deaths

“to Err is Human”

Building a Safer Health System , report issued in November 1999 by the U.S.

Deaths due to errors in medicine

- Up to 80.000 deaths/year in Germany
- Up to 6.000 deaths/year in Austria



**One of the most common:
One out of 5 medication applications
result in an error**

(Barker Flynn Pepper; 2002)



Naloxon OrPha[®]
(Naloxonhydrochlorid)

0,4 mg/ml Injektionslösung

10 Ampullen zu 1 ml
Zur i.v., i.m. und s.c. Injektion.
1 ml enthält:
0,4 mg Naloxonhydrochlorid,
Natriumchlorid, Wasser für Injekt.
Bei Raumtemperatur (15 bis 25°C) vor
Licht geschützt aufbewahren.



Nalbuphin OrPha
(Nalbuphinhydrochlorid)

20 mg/2 ml Injektionslösung
Analgetikum

10 Ampullen zu 2 ml
Zur i.v., i.m. und s.c. Injektion
2 ml enthalten:
20 mg Nalbuphini hydrochloridum,
natrii citras, acidum citricum anhydricum,
natrii chloridum, Aqua ad inject.
Bei Raumtemperatur (15–25°C) vor Licht
geschützt aufbewahren.



Asking pilots and physicians/nurses questions ...

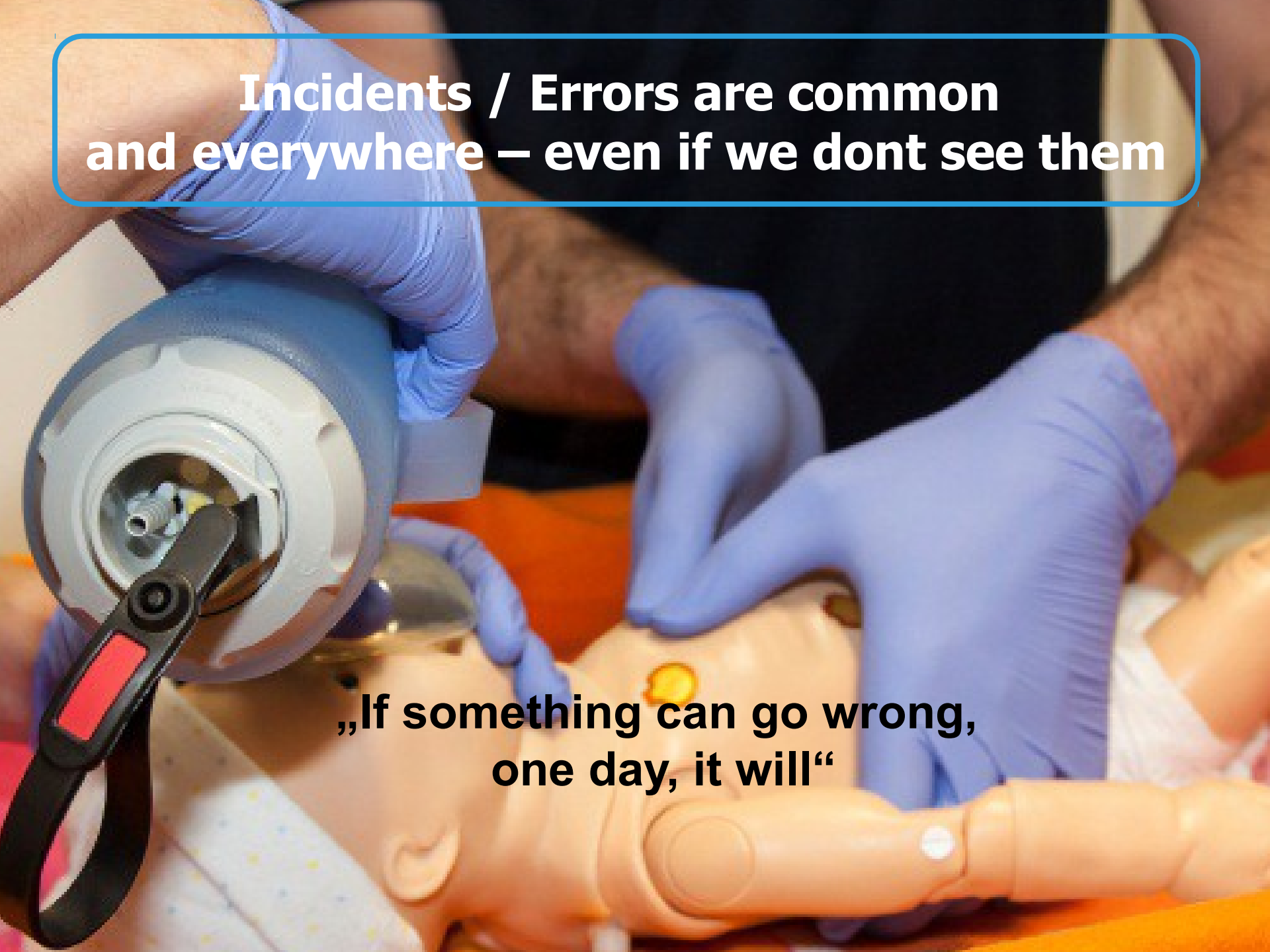
- Even if i am tired, i am capable of handling emergency situations. Answered with yes...

- Pilots ... 26%
- Physicians..... 70%

- I dont do any mistakes.

- 30% of physicians and nurses on ICUs answered with yes...

**Incidents / Errors are common
and everywhere – even if we dont see them**

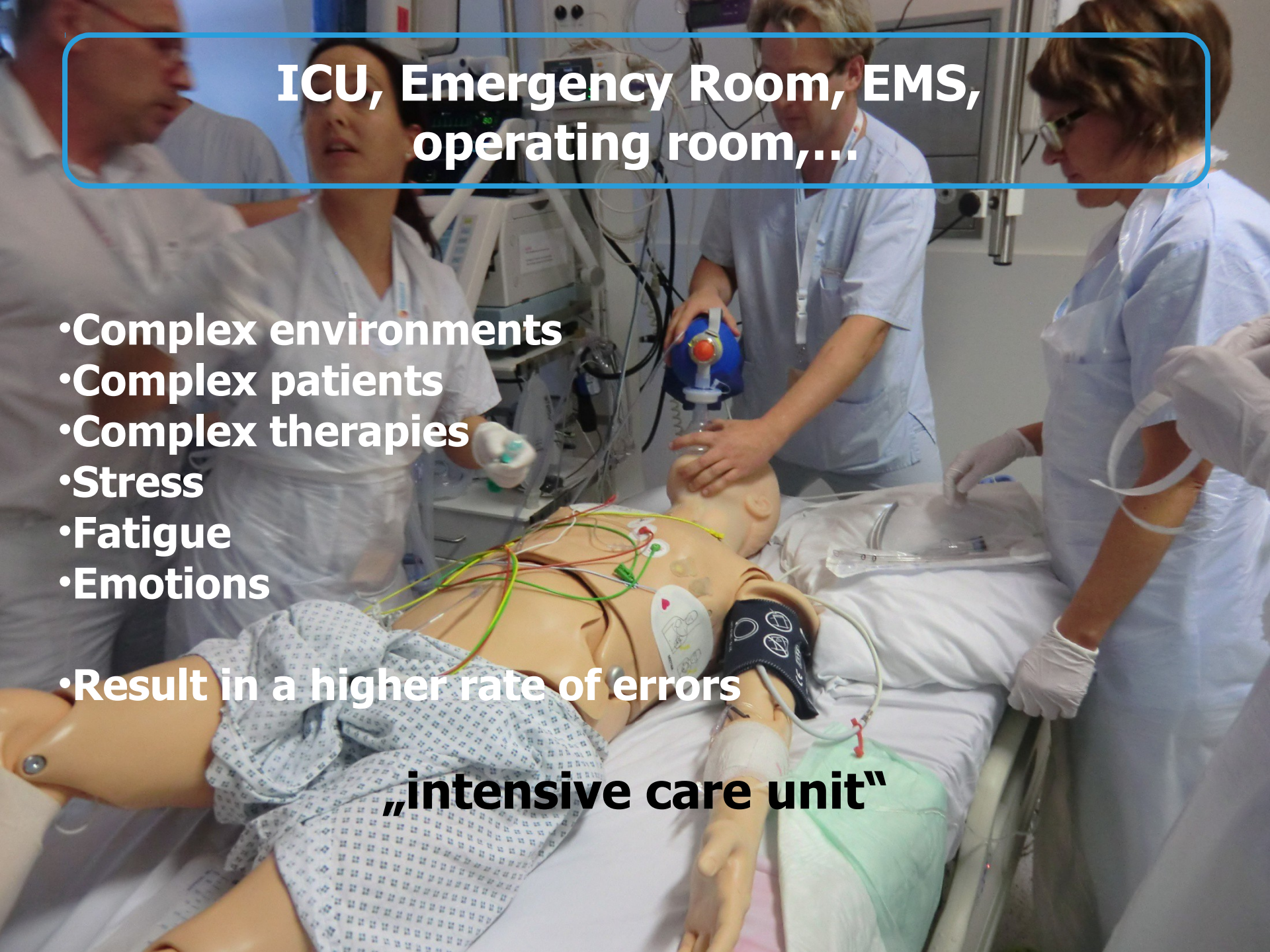


**„If something can go wrong,
one day, it will“**

Are (prehospital) emergency medicine teams better than the others?

NO!!!



A photograph of a clinical setting, likely an ICU or emergency room. A patient is lying on a gurney, surrounded by medical professionals in white scrubs. The patient is connected to various medical devices, including a blue ventilator mask and several monitoring wires. The scene is busy and focused, with the medical staff appearing to be in the middle of a procedure or assessment. The background shows typical hospital equipment and a clean, clinical environment.

ICU, Emergency Room, EMS, operating room,...

- Complex environments
 - Complex patients
 - Complex therapies
 - Stress
 - Fatigue
 - Emotions
- Result in a higher rate of errors

„intensive care unit“

Why simulating? Why playing with dolls?



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FEAR FACTOR

Once done right...

- High acceptance rate
- Effective learning method
- Combining with CIRIS
- Process / Risk management



What makes learning with simulation so efficient?

Features and uses of high-fidelity medical simulations that lead to effective learning”
a BEME systematic review (Issenberg et al, 2005, Medical Teacher)

•Receiving feedback

- Repeating keypoints
- Different levels of expertise
- Combining different learning strategies
- On demand and broad clinical conditions
- Keep 90% of what you do hands on
- Safe learning environment
- Individual learning
- Learning goals

So, how does simulation training work now...



Briefing

Scenario

Debriefing

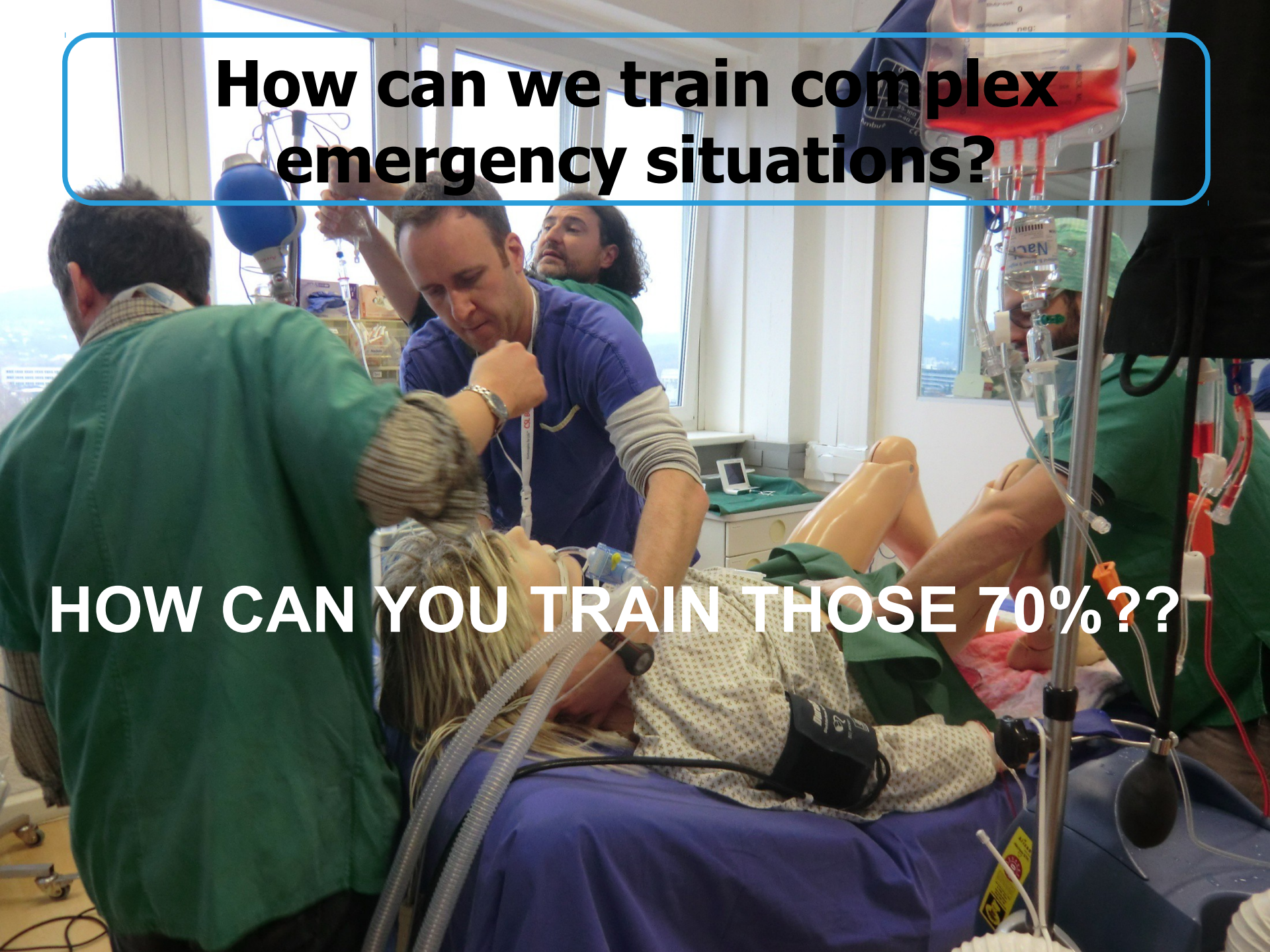
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How can we train complex emergency situations?

HOW CAN YOU TRAIN THOSE 70%??





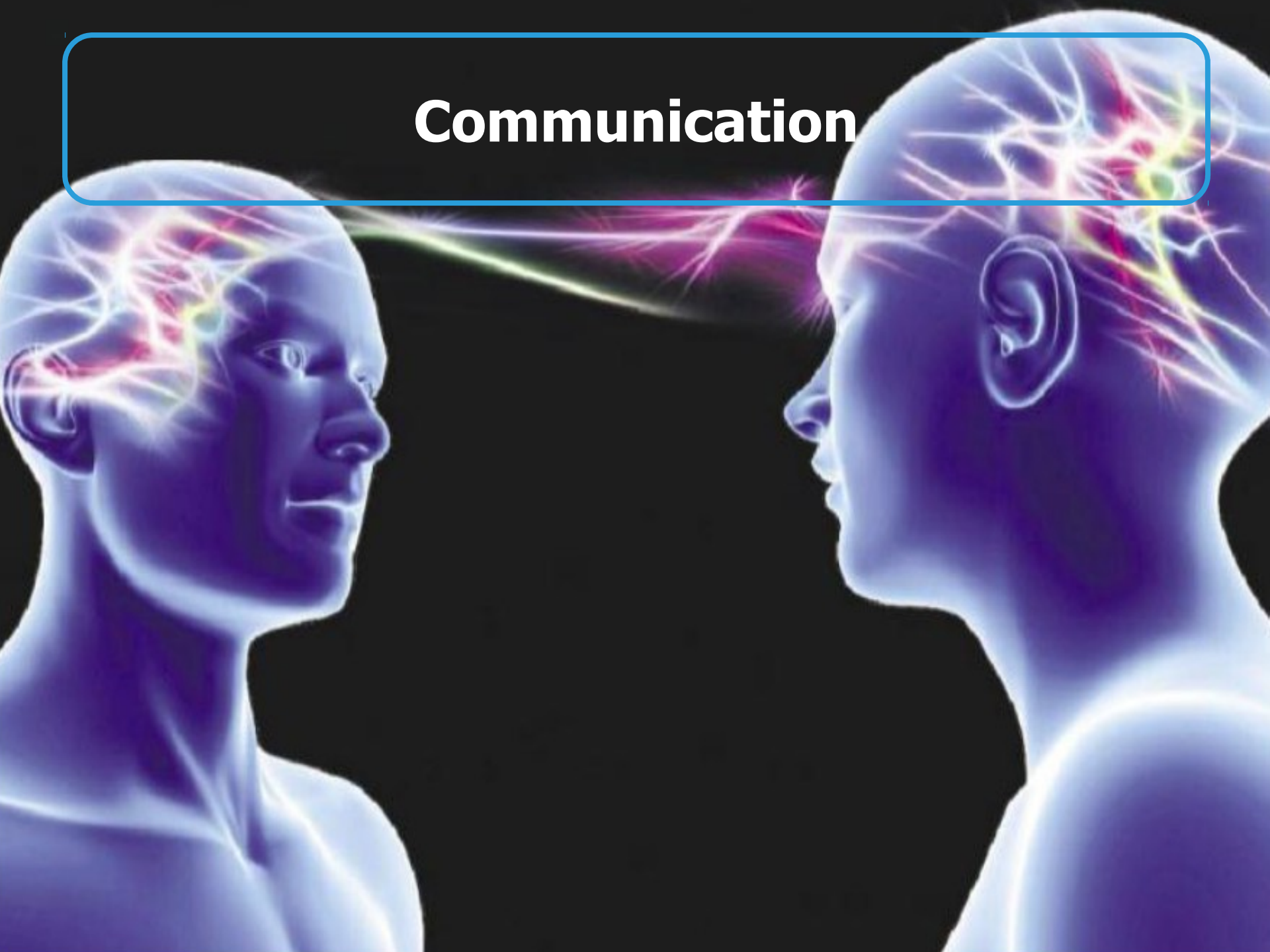
Tool called :

„CRM“

Crisis resource management

INVOLVING

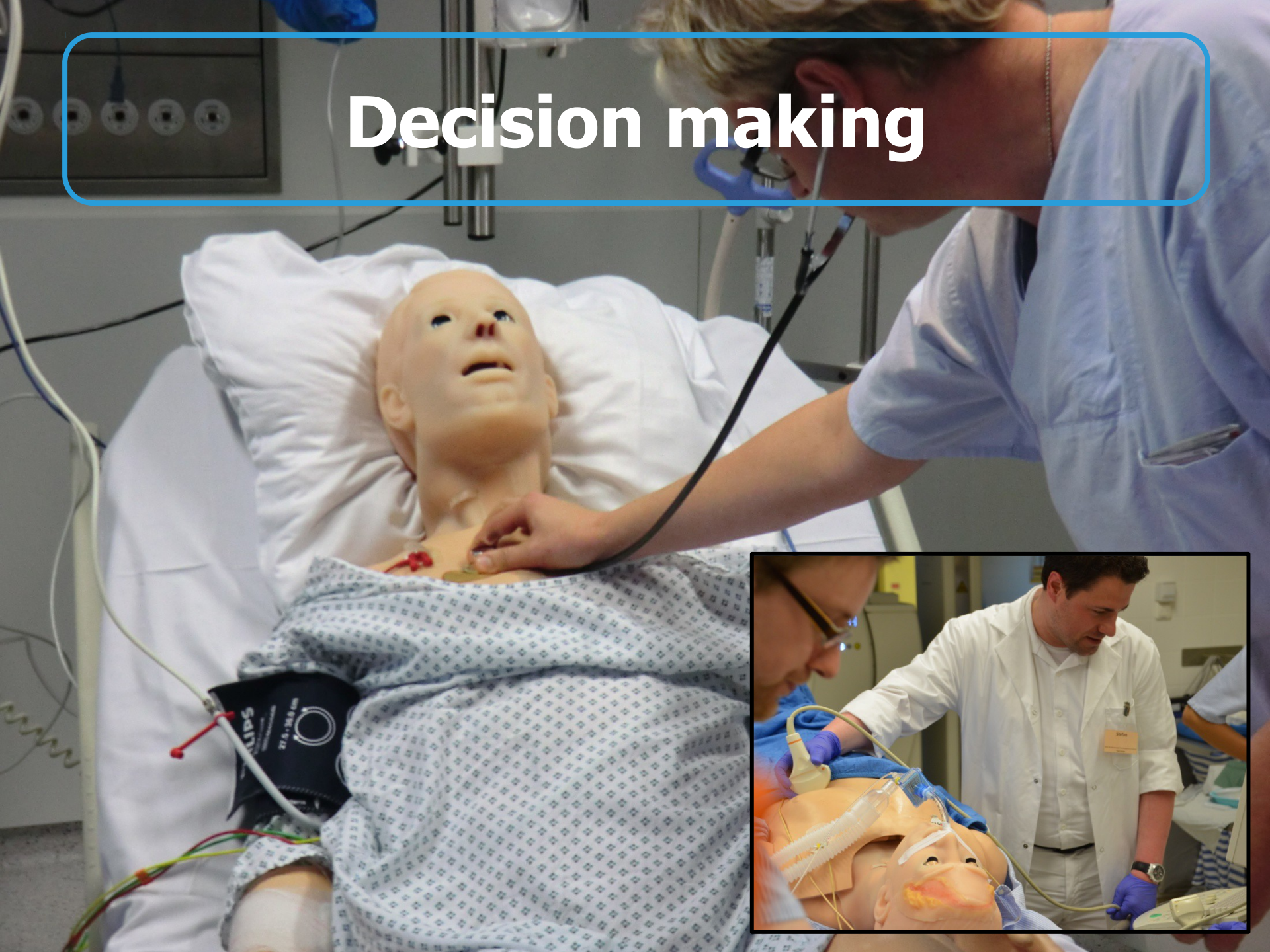
Communication



Teamwork



Decision making



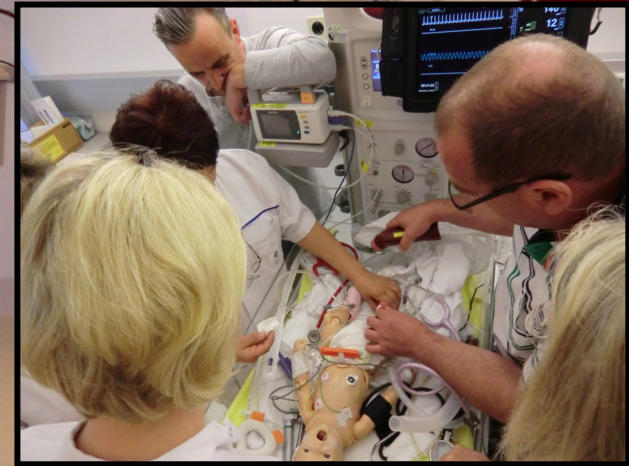
Distribution of workload



Situational awareness



OTHERS LIKE: Know your work-place



**OTHERS LIKE:
„Have doubts and double check“**



OTHERS LIKE: Teamleading



A yellow rectangular sign with rounded corners and a black border is mounted on a vertical wooden post. The sign features the text "THE END IS NEAR." in bold, black, sans-serif capital letters. The sign is secured to the post with two silver screws, one above and one below the text. The background is a dramatic sky with dark, swirling clouds and patches of orange and yellow light, suggesting a sunset or sunrise.

**THE END
IS NEAR.**

Simulation Training

SUCCESS



A hand is pointing at a medical monitor. The monitor displays various data points and graphs. A red 'X' is drawn over the text 'to Err is Human'.

~~to Err is Human~~

Building a Safer Health System
report issued in November 1999 by the U.S.

To improve is human

To grow is human

To learn is human
(Dr. Tony Kern)

Thanks for your attention!

Questions?

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