ERRO MEDICO
PRESPECTIVA DOS PROFISSIONAIS DE SAUDE

PALESTRANTE CONVIDADO:

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Dr. Mario Evora
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Enfermagem de Macau

DATA:

06 de Dezembro (Sexta Feira)

18.30 - 19.00 Cocktail

19.00 - 20.00 Apresentação e
Discussão do Tema

LOCAL:

CLUBE MILITAR DE MACAU

Medical Error

LUÍS CAMPOS

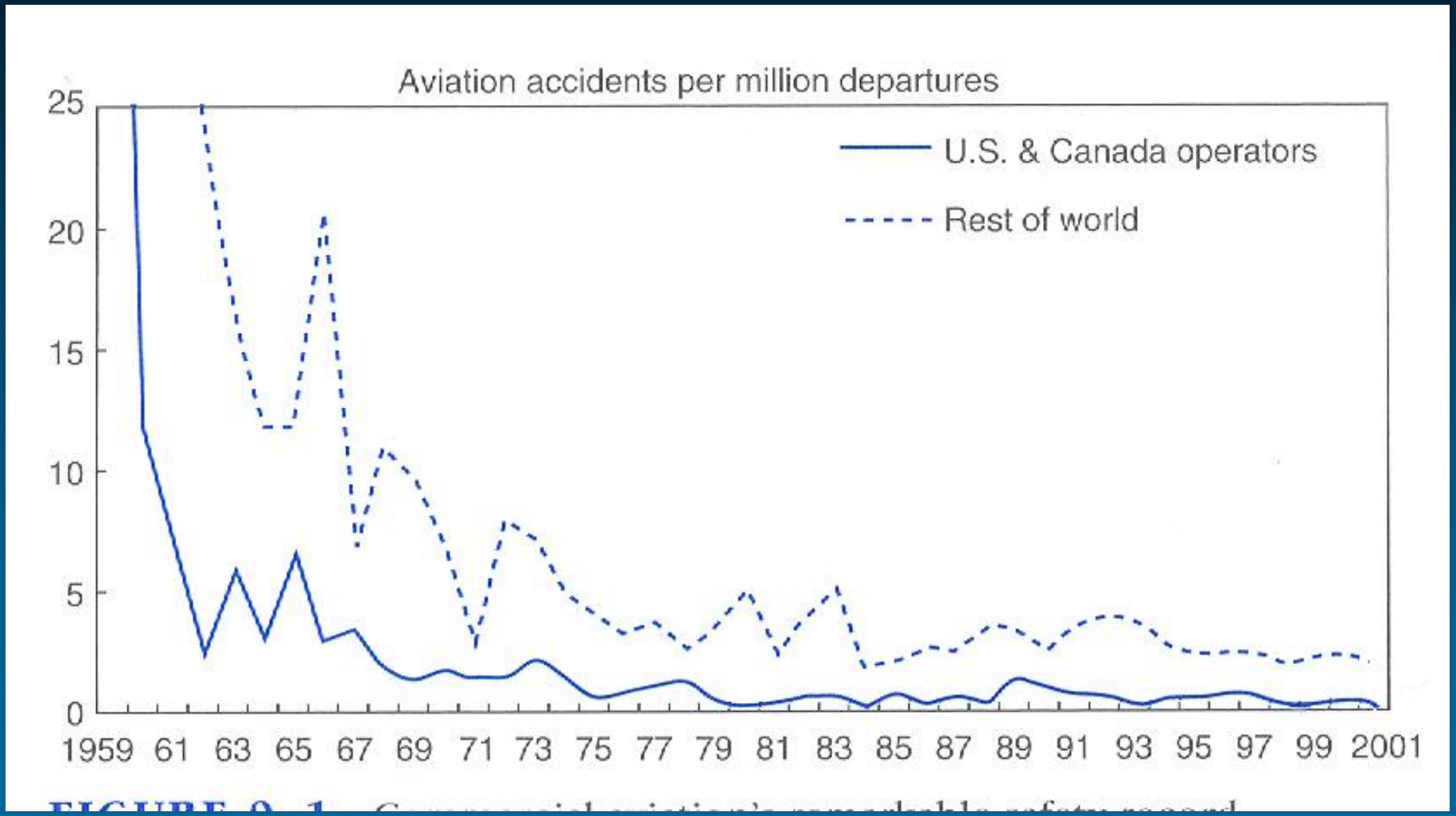
Hospitals are dangerous places ...

Risk of death due to error or accident ...

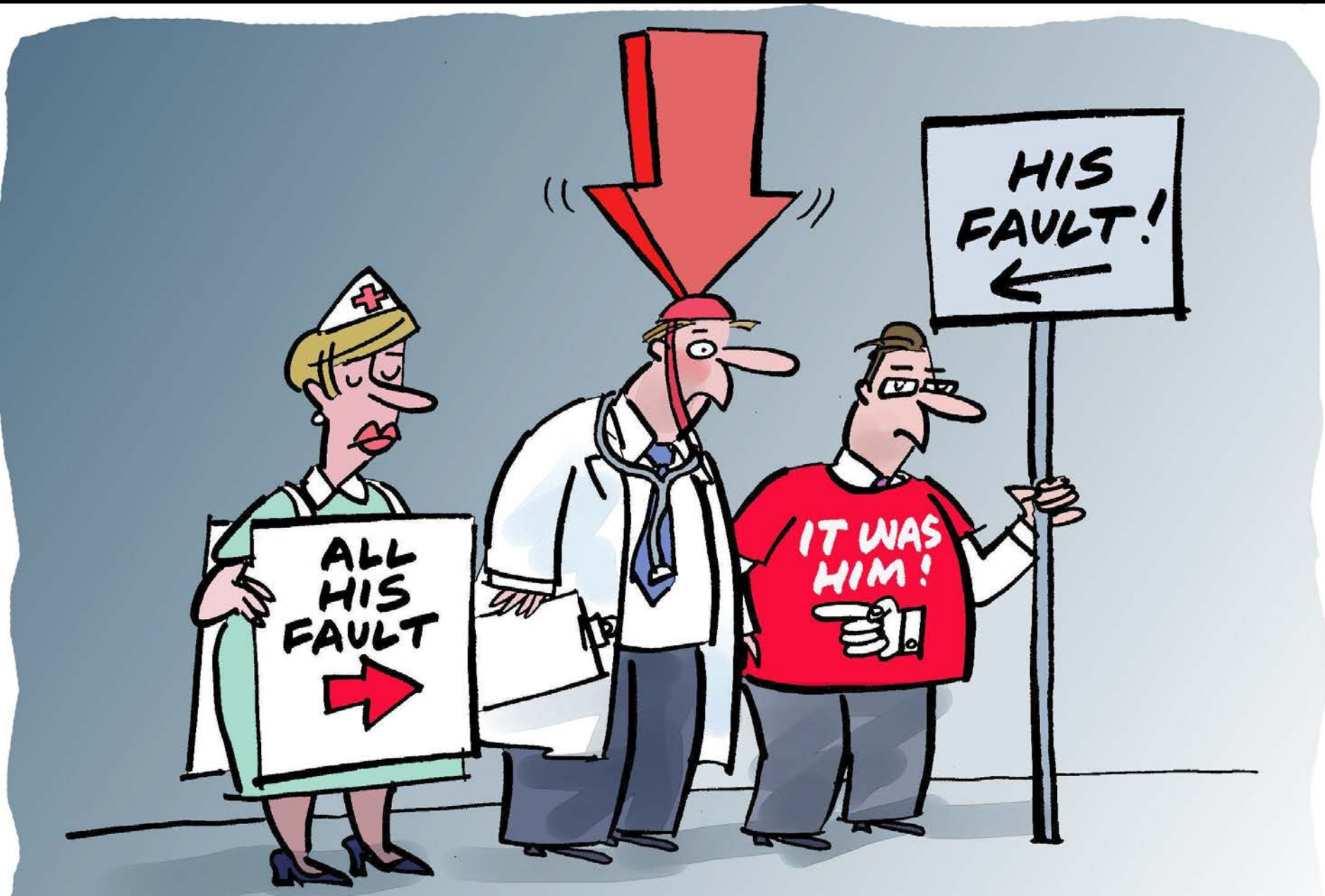
1: 300

1: 6.000.000

Evolution of aviation accidents per million departures (1959-2001)



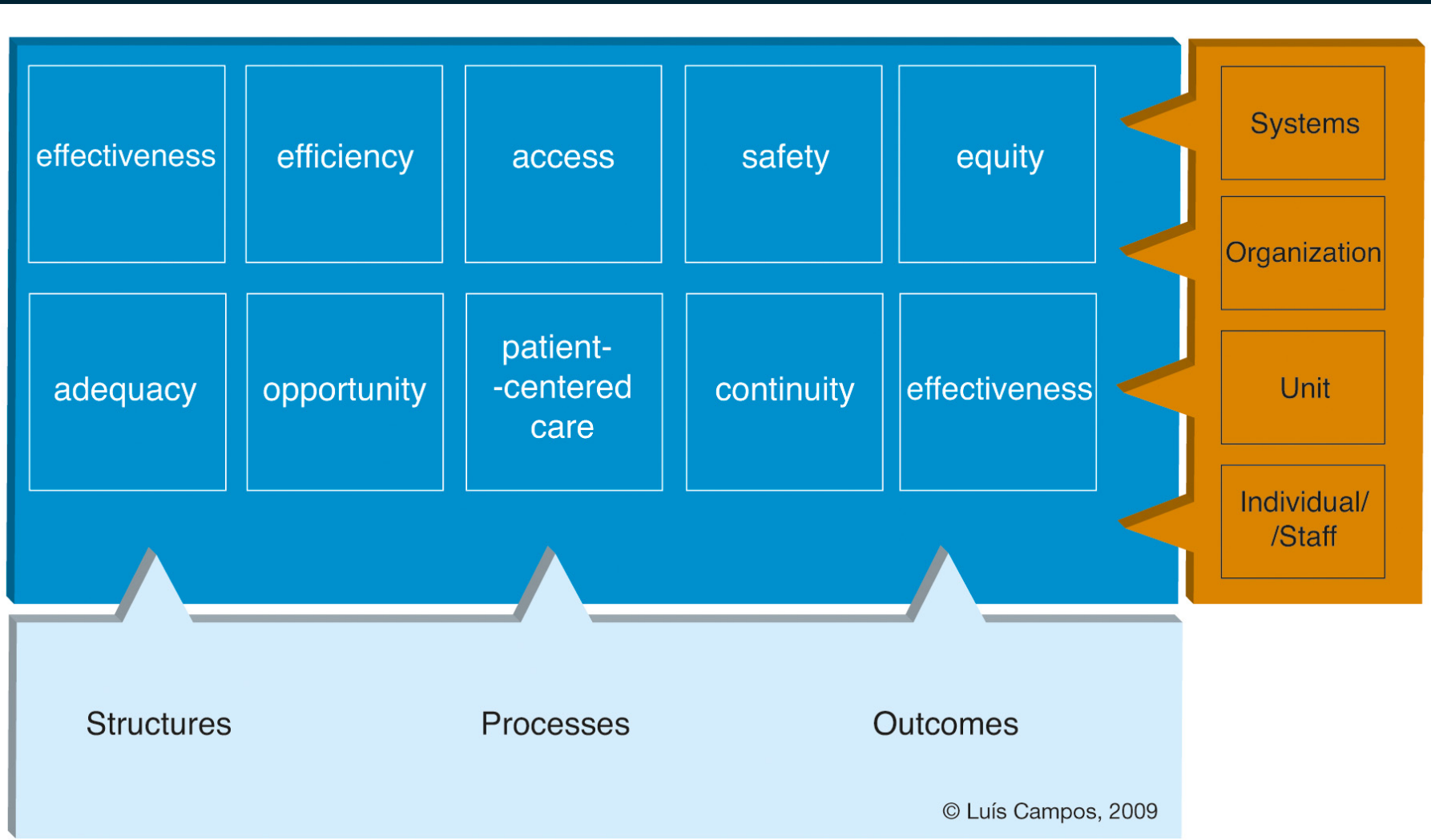
Sexton JB, BMJ 2000; 320:745-749



"DR. SIMPKINS DREW THE SHORT STRAW AT THE PRE-INSPECTION MEETING."

The hospitals are very complex organizations

Conceptual Framework for Quality Improvement



Campos L. *A Qualidade no PNS 2010-2016* www.acs.min-saude.pt/pns2011-2016

1. What is a medical error?
2. How often medical errors occur?
3. Why medical errors occur?
4. What can we do to prevent medical errors?
5. Is there an alternative for a malpractice system?

1

What is a Medical Error ?

Conceptual Framework for the International Classification for Patient Safety (WHO 2009)

- An **error** is a failure to carry out a planned action as intended or application of an incorrect plan.

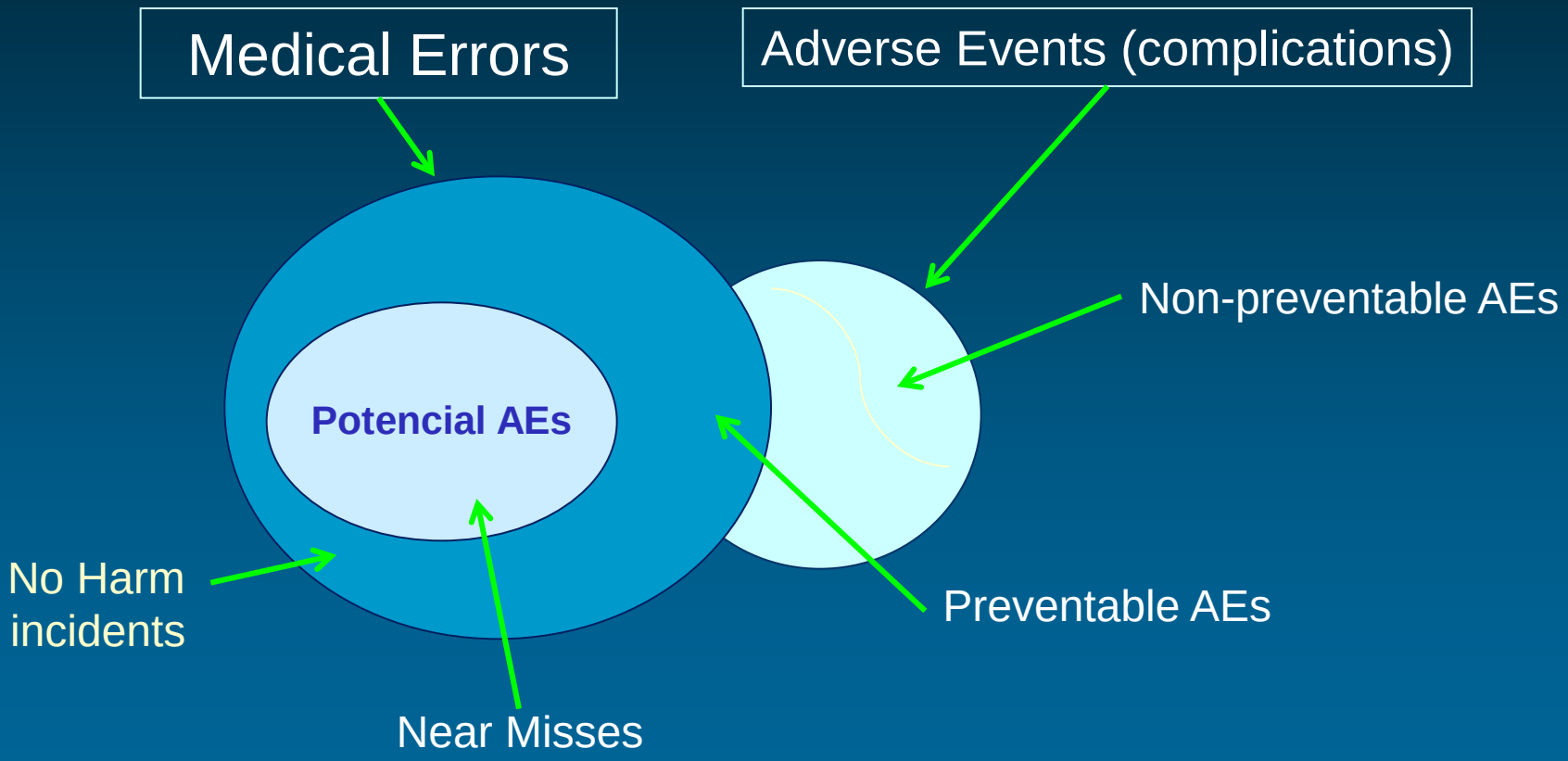
  Errors may manifest by doing the wrong thing (commission) or by failing to do the right thing (omission), at either the planning or execution phase.

- A **violation** is a deliberate deviation from an operating procedure, standard or rule.

Conceptual Framework for the International Classification for Patient Safety (WHO 2009)

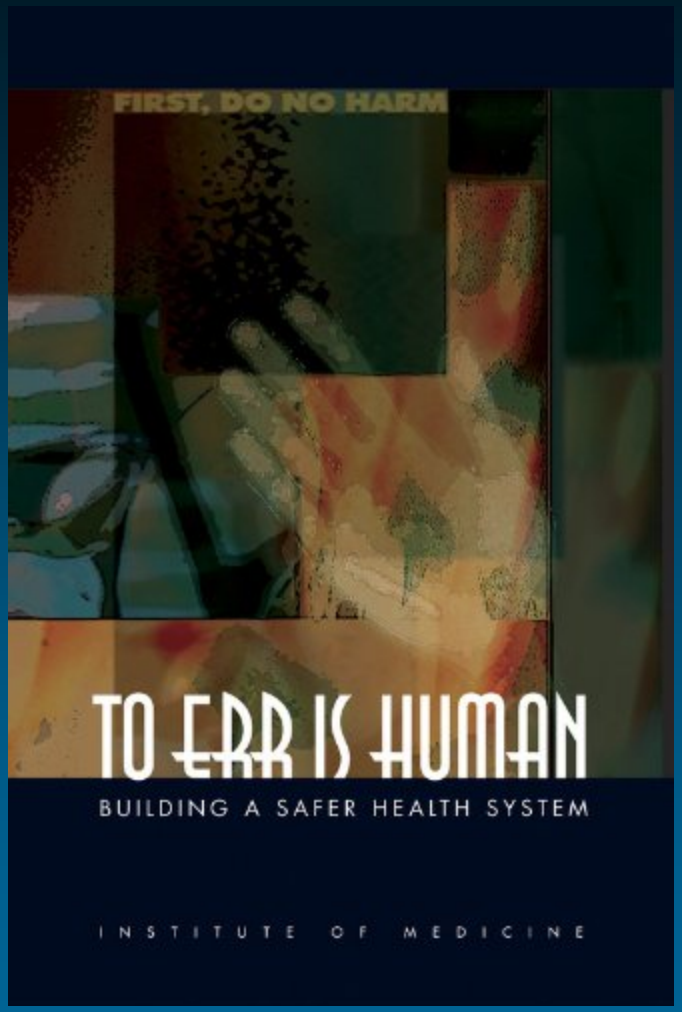
- A **patient safety incident** is an event or circumstance that could have resulted, or did result, in unnecessary harm to a patient.
- A **reportable circumstance** is a situation in which there was significant potential for harm, but no incident occurred
- A **near miss** is an incident which did not reach the patient.
- A **no harm incident** is one in which an event reached a patient but no discernable harm resulted
- A **harmful incident (adverse event)** is an incident that results in harm to a patient

Relationship between medical errors and adverse events



2

How often medical errors occur?



44.000 to 98.000 Americans die every year from medical errors.

Institute of Medicine.

To Err is Human: National Academy Press, 2000

Thre variable epidemiology of medical error

- Self report
- Chart audits
- Trigger tools
- Patient complaints
- Malpractice claims
- Indicators monitorization

Incidence of Adverse Events (AE)

- 10 / 100 hospital admissions
- 5 /1000 of AE cause irreversible damages
- 50% could be avoided

Miller GC, 2006; Baker GR, 2004; Bates DW, 1995; Fragata J, 2009; Brennan TA, 2001

Incidence of Adverse Events (AE) worldwide

- 2% of hospitalized patients are affected by an AE in the operating room (48% of all AE- 74% are preventable).

- 7,5% to 10,4% of patients in acute care experience an Adverse Drug Event (140.000 deaths annually in the USA, 28-56% are preventable)

- 5-10% of patients admitted to hospitals in developed countries suffer infections associated to health care. This represents 7,2-8$ billion in the USA.

Miller GC, 2006; Baker GR, 2004; Bates DW, 1995; Fragata J, 2009; Brennan TA, 2001

HEALTH CARE

Diagnostic Errors Are the Most Common Type of Medical Mistake

By Alexandra Sifferlin | April 24, 2013 | 1 Comment

When Dr. David Newman-Toker was a medical resident at a Boston hospital, he witnessed what he calls tragic cases in which otherwise healthy people suffered serious consequences from misdiagnoses that could have been prevented.

BEN EDWARDS / GETTY IMAGES

Newman-Toker, now an associate professor of neurology at the Johns Hopkins University School of Medicine, recalls an 18-year-old aspiring Olympic skater who fell on a ski slope and came to the hospital with weakness on one side of her body and a headache. She was told she had a migraine and was sent home. Six days later, she returned to the

Compensation for medical malpractice in the US (1986-2010) N = 350 706

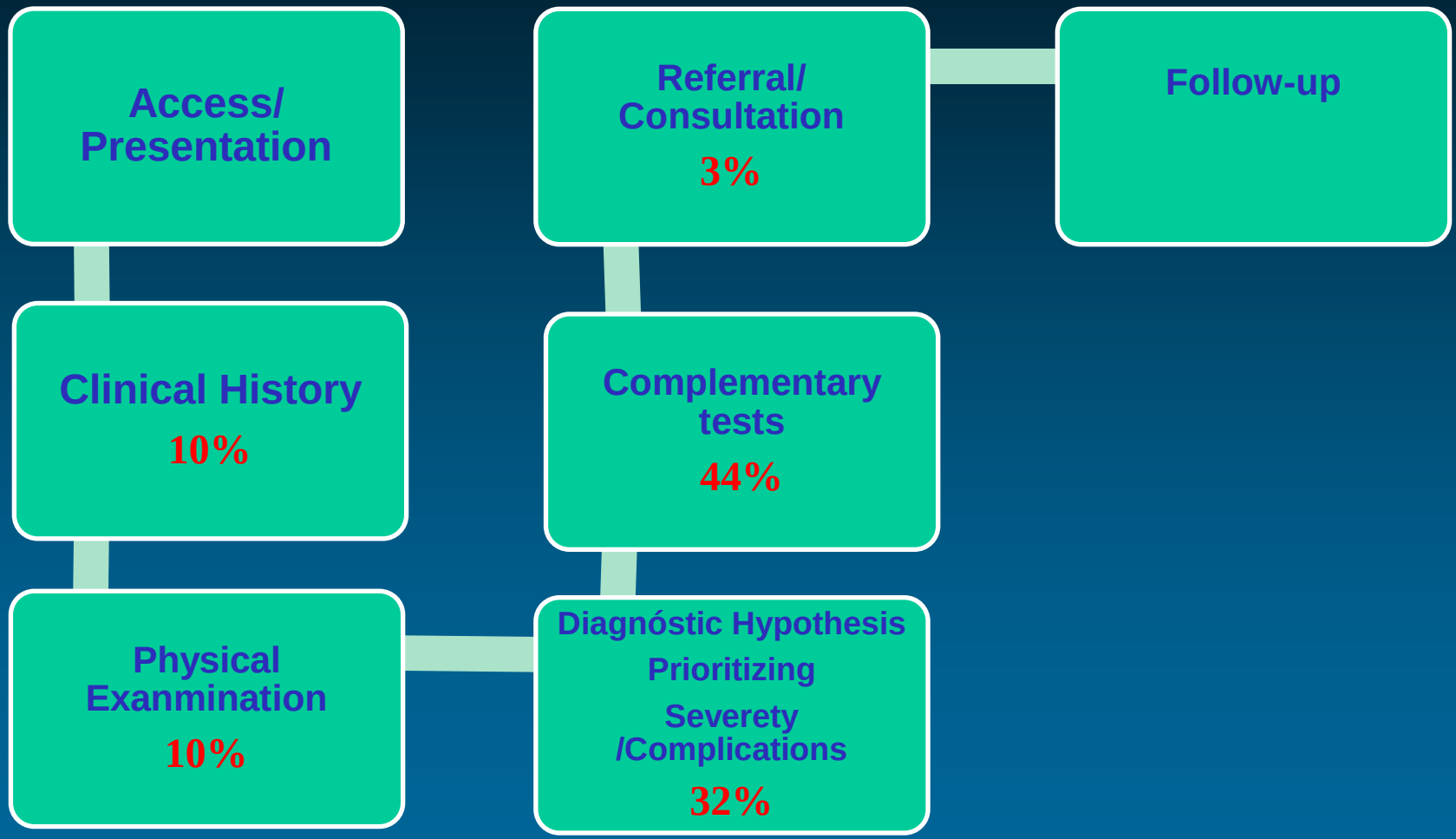
- **Diagnostic errors** are the most common cause of claims (28.6%), the largest volume (35.2%) and those who more lead to death (40.9% vs. 20.9%).

- The **amount of compensation** for misdiagnosis was $ 38.8 billion (Average = $ 386,849).

- The **most frequent diagnostic errors** are the lost diagnoses (54.2%) and occur in outpatient settings (68.8% vs. 31.2%).

Tehrani ASS, et al. Quality and Safety in Healthcare 2013;0:1-9 doi: 10.1136

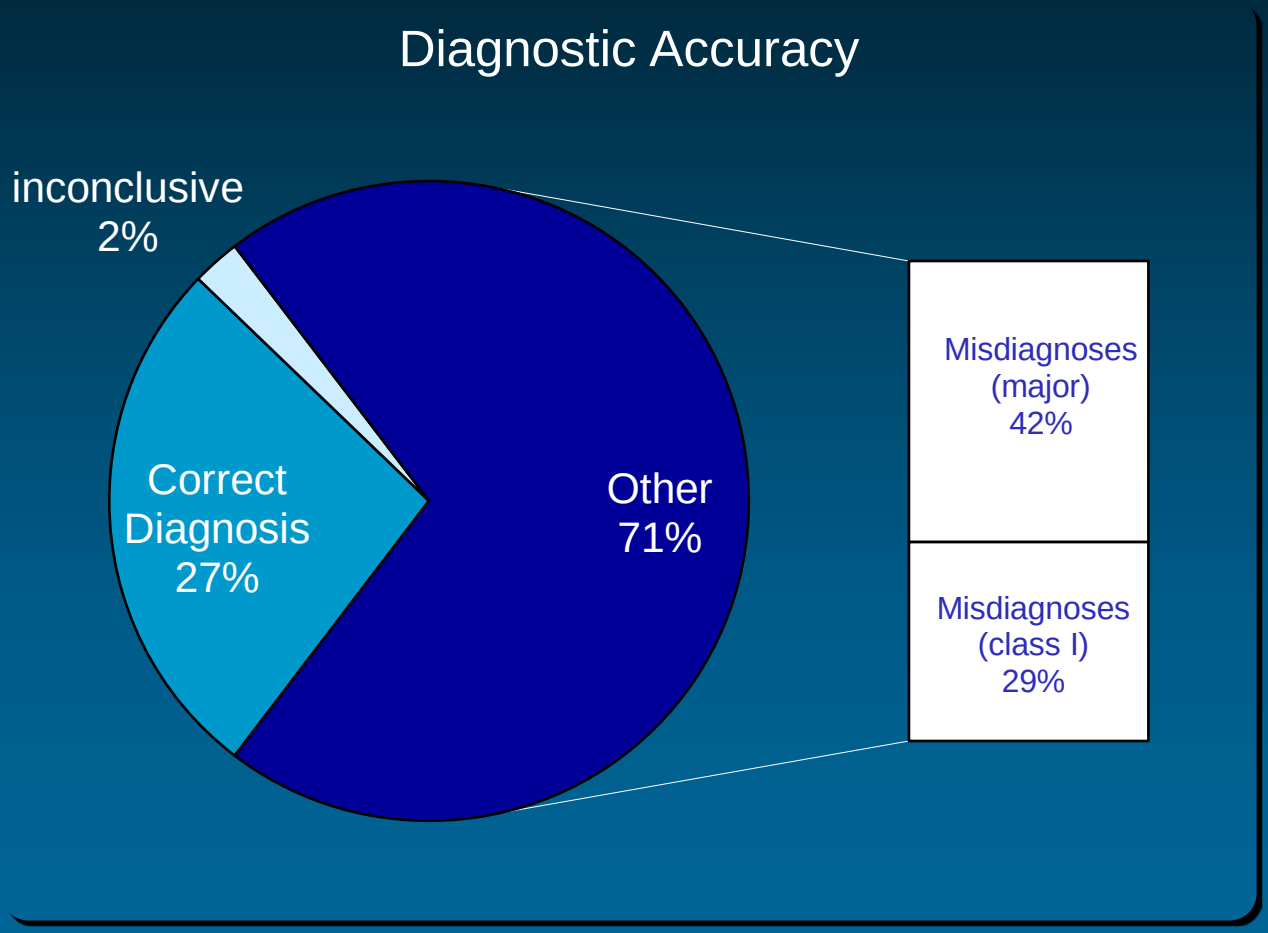
Analysis of 583 physicians-reported diagnostic errors



Schiff GD et al. *Arch Intern Med* 2009; 169: 1881-1887

Clinical Autopsies in ER

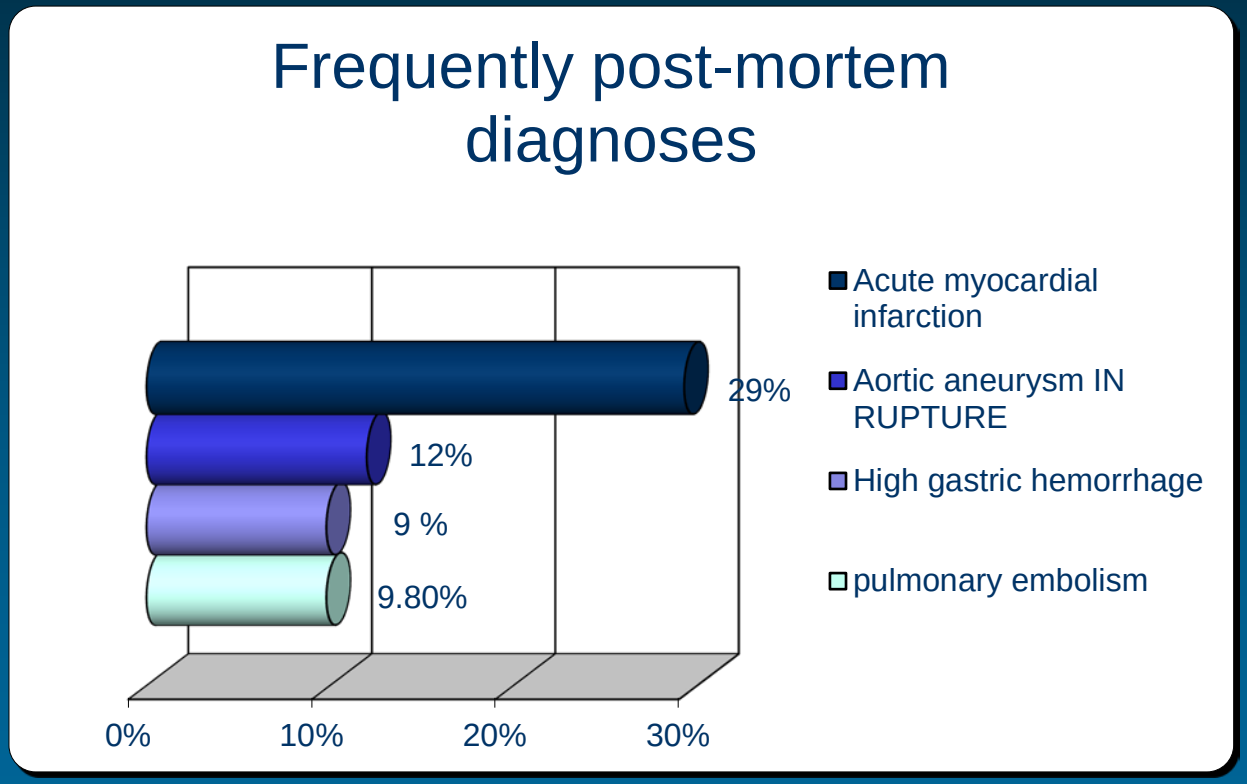
54 autopsies in 885 deaths (2003-2005)



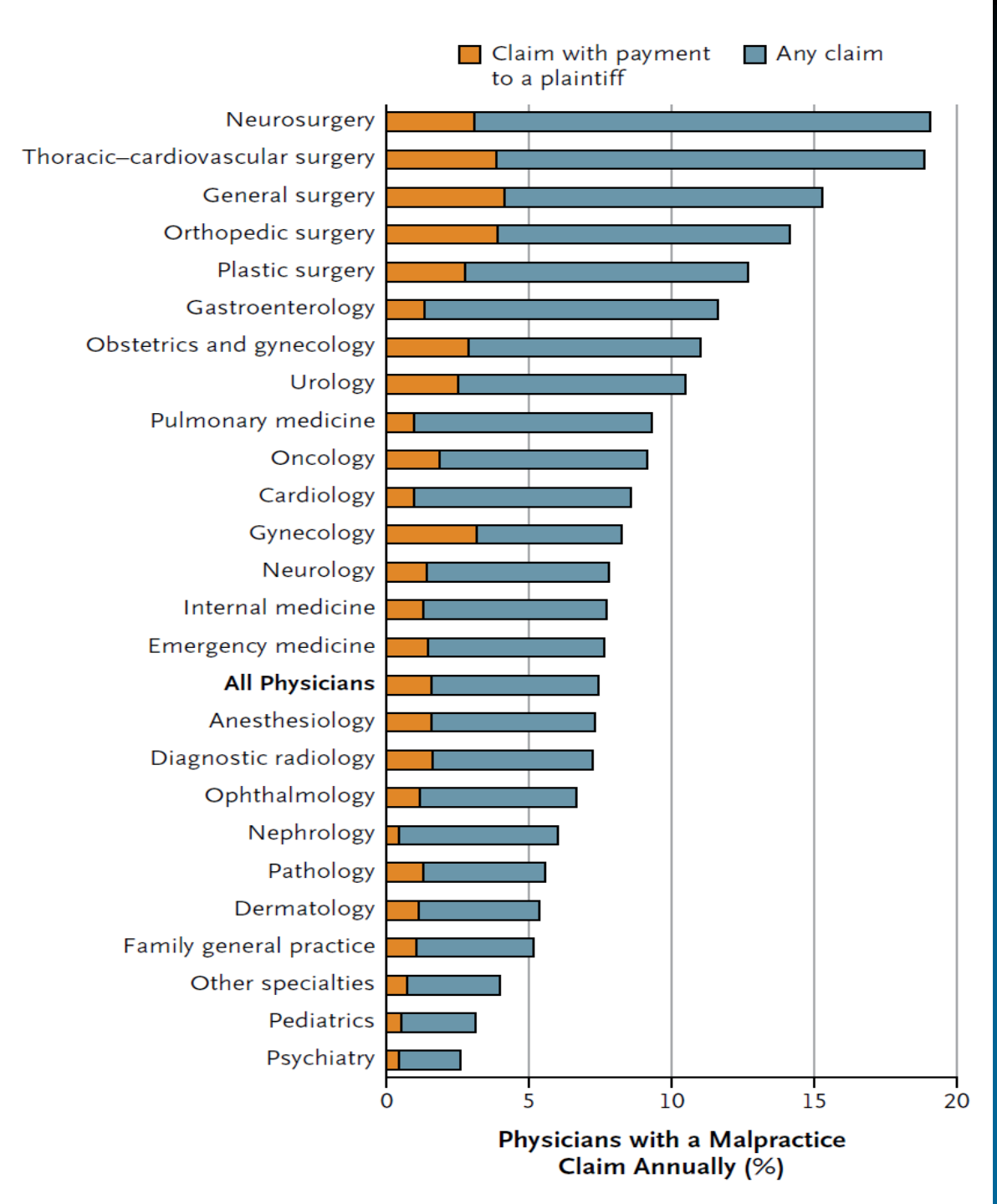
M. Monteiro, 11º Congresso Nacional de Medicina Interna, 2005

Clinical Autopsies in ER of a Central Hospital

54 autopsies in 885 deaths (2003-2005)



M. Monteiro, L Campos, 11º Congresso Nacional de Medicina Interna, 2005



Physicians facing a malpractice claim annually, according to the specialty (1991-2005)

Jena AB, NEJM 29011; 365: 629-36

3

Why medical errors happen?

CLINICAL CASE

47 y. old, male.

ER Lymphadenopathy, hoarseness and respiratory distress

Companion stood at the door

ORL Emergency

5 Floor

Hyperaemia of the pharynx – Salivary stasis prevents observation of endolarynx

Corticoid IM + Antibiotic + NSAID → (discharged)

1st Floor → asphyxia → CPR

Absence of Resuscitation team

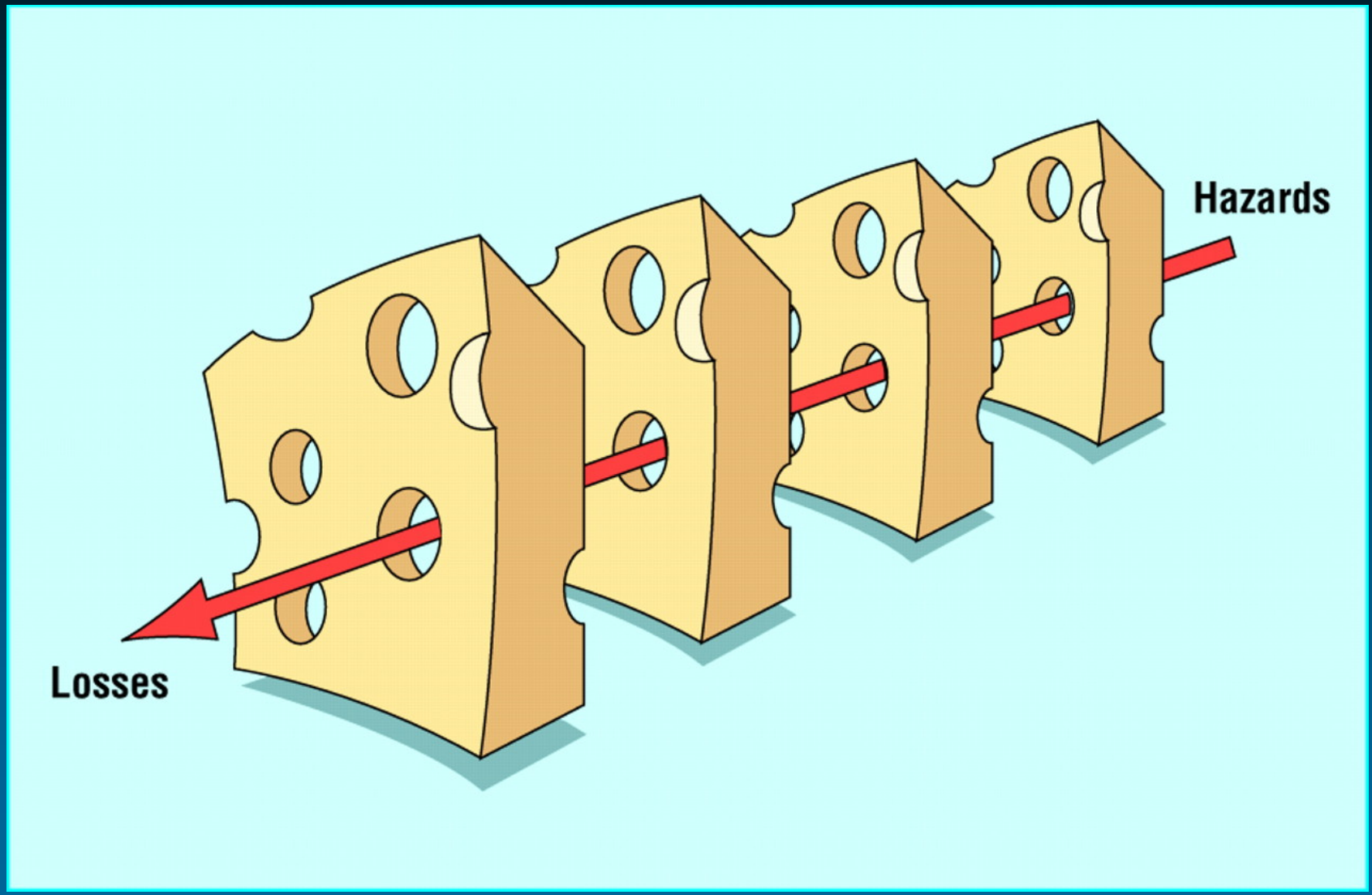
ER

Call of Anesthesiology for intubation

5 Floor

LIFE SUPPORT → VEGETATIVE STATE → DEATH

Reason's Theory



Relative importance of causes of error in healthcare

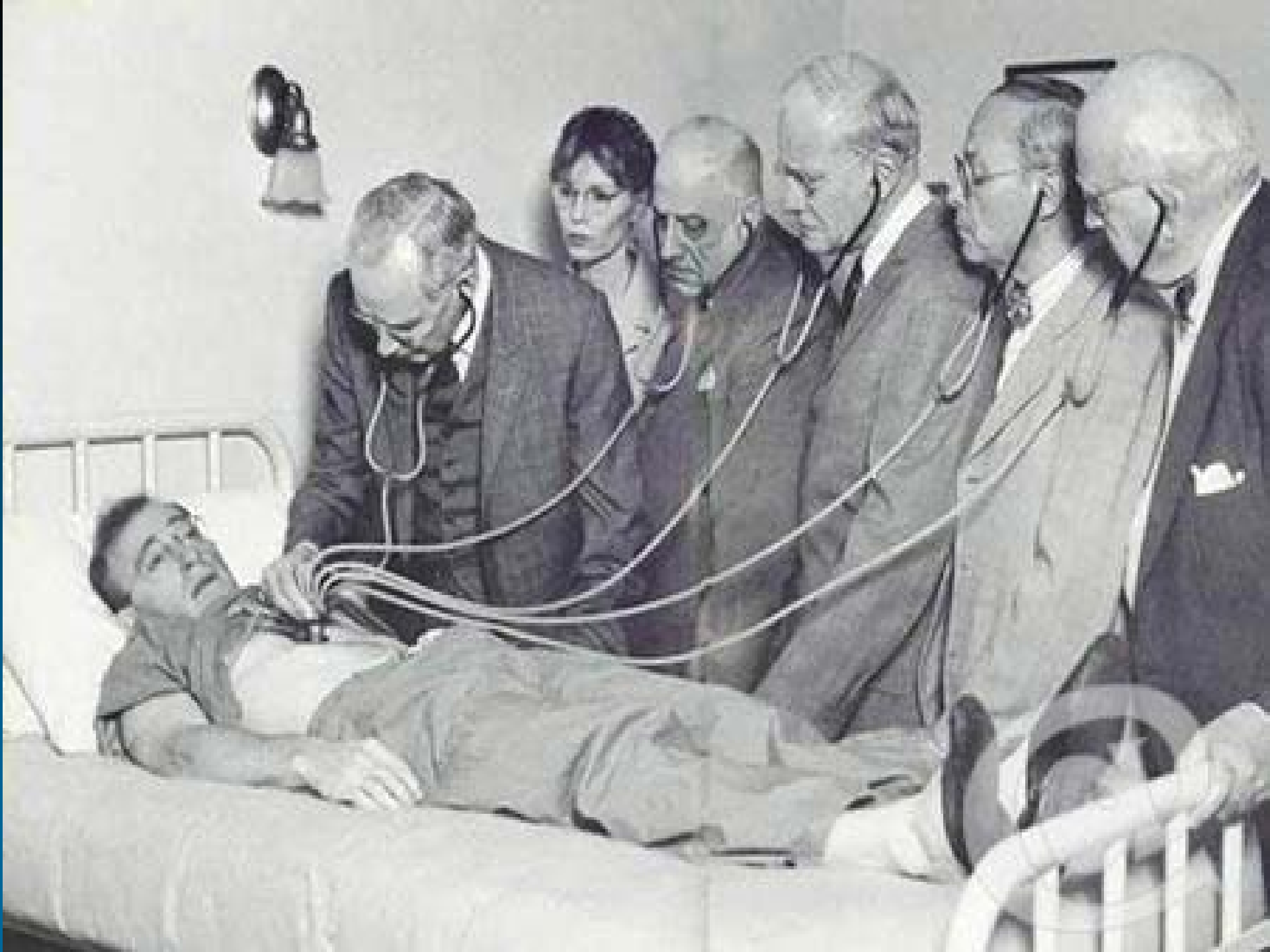
- Human factors - represent about 60-70% of the causes

- Factors attributable to the organization or system, around 20 to 30%

Fragata J, 2009

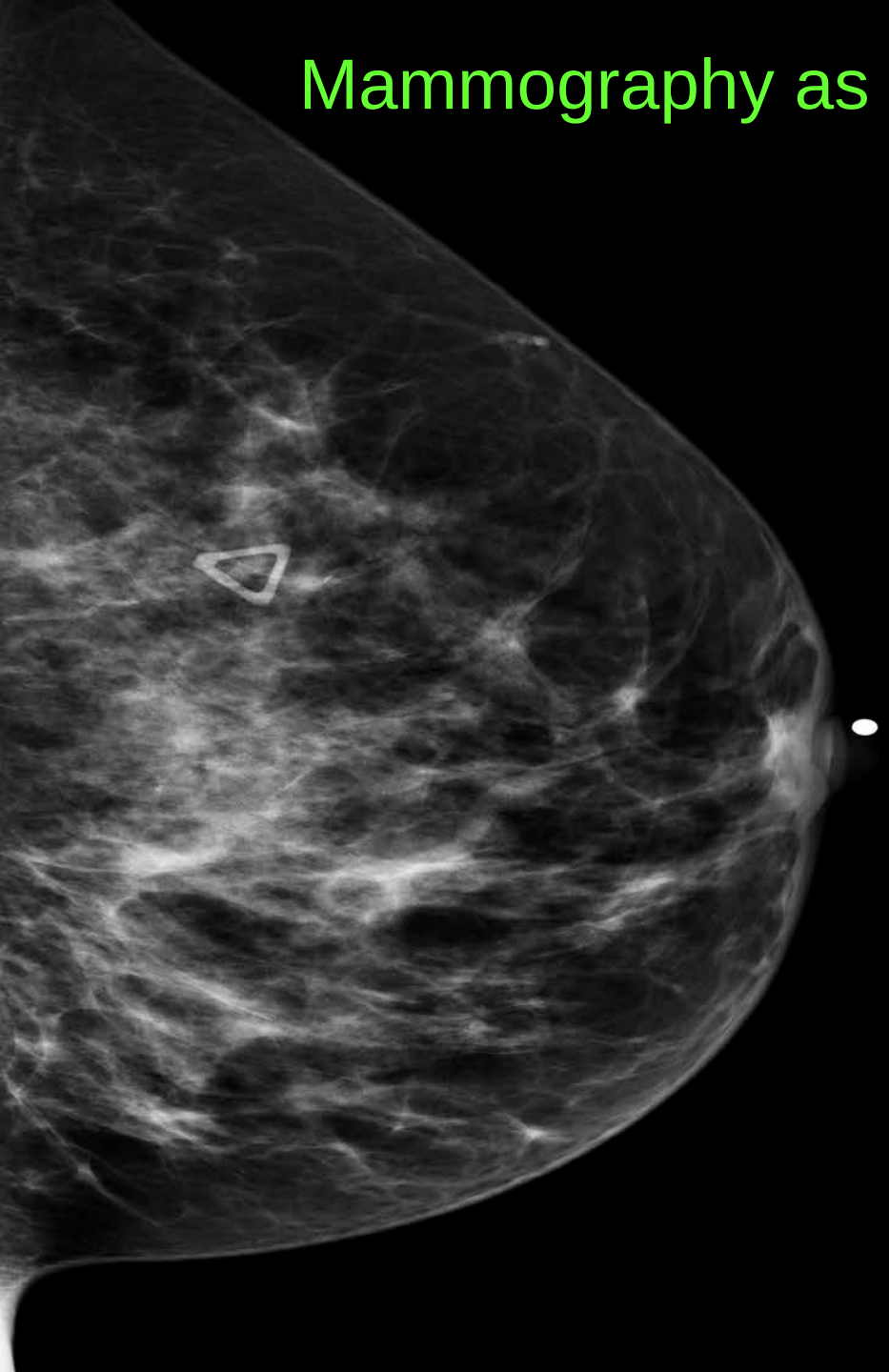
Causes of medical errors

- Causes Related to Patients
- Causes Related to Professionals
- Causes Related with Tasks and Technology



Humans are not good at monotonous tasks constant surveillance ...

Mammography as a screening method



One in four breast cancer cases the cancer is detected after a normal mammography

(Fenton JJ, 2007)

The probability of a false positive after 10 mammographies is 50% and one third of the women will be submitted to a unnecessary biopsy

(Elmore JG, 1998)

Causes of medical errors

- Causes Related to Teams
- Causes Related to Work Environment
- Causes Related to Organization and Management
- Causes Related to the Context of the Institution

Teamwork

Surgical blocks

- Authority centered
- Poor distribution of tasks
- Poor supervision
- Rare check-listing
- Culture of infallibility
- Culture of blame

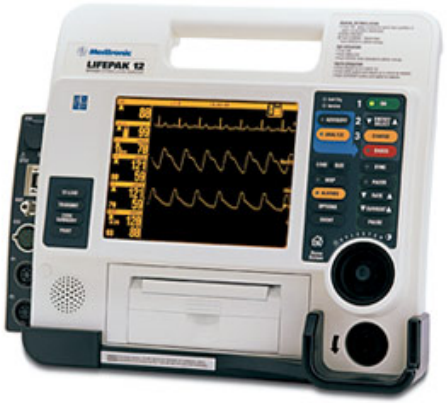
Cockpits

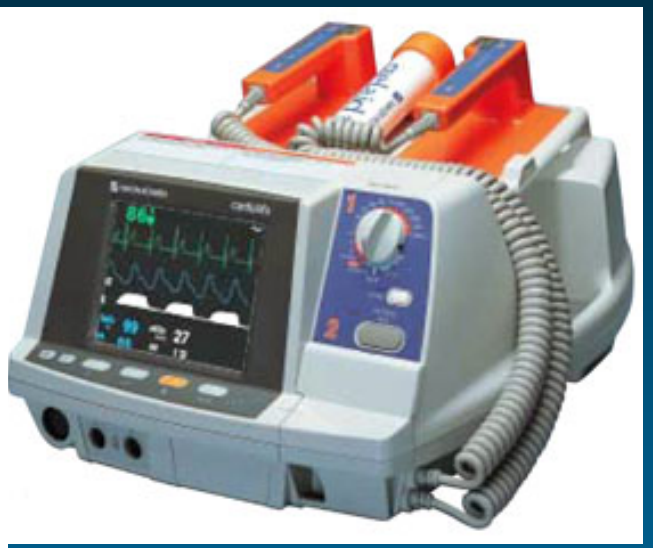
- Hierarchies <marked
- Better communication
- Perception of fatigue
- CRM (Team Training)
- Self-reporting without guilt
- Near Miss Reporting

(Fragata J 2005, adaptação de Helmereich, 1990)

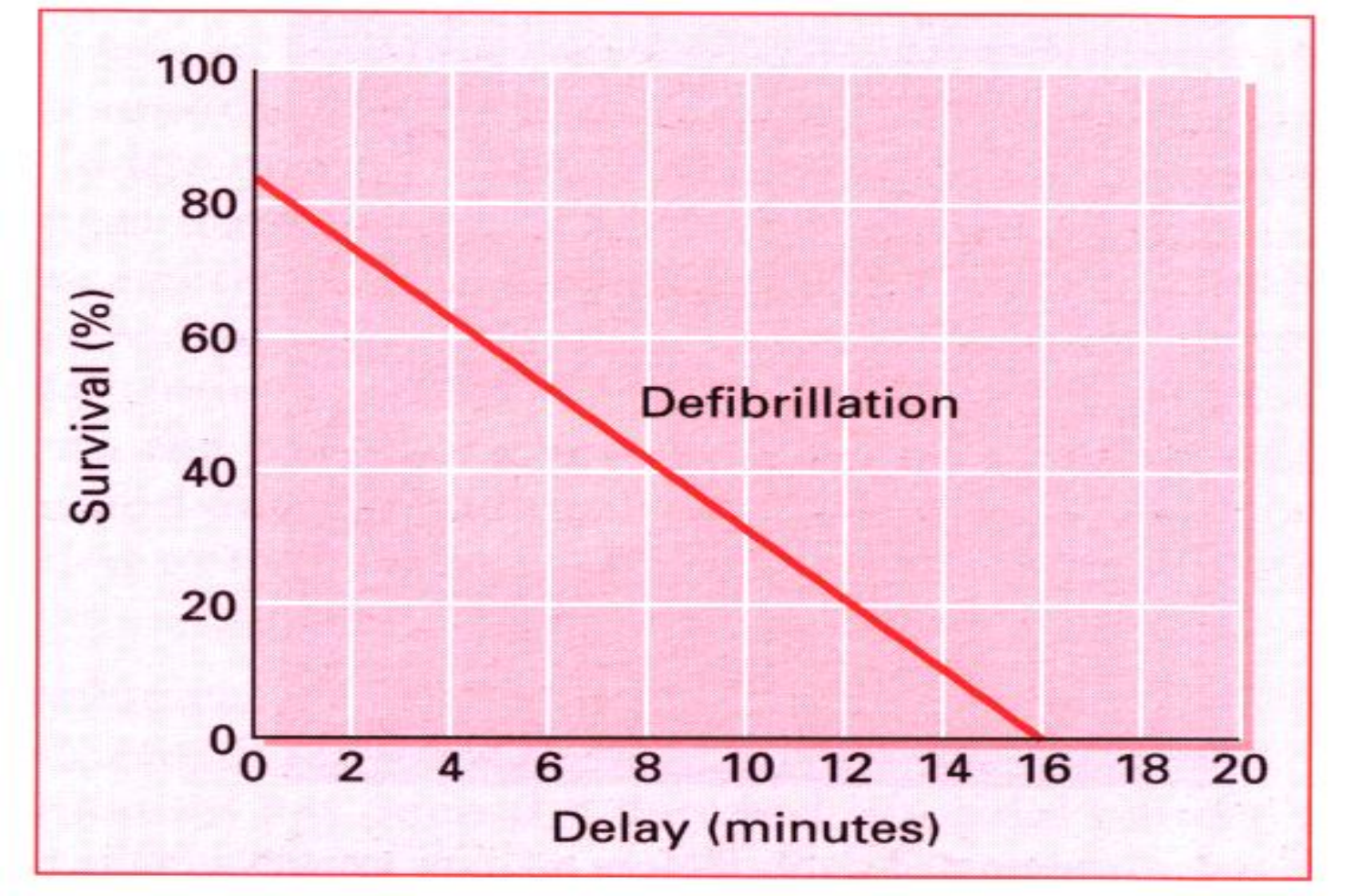
Communication problems are the single biggest cause of nearly 70% of sentinel events in the hospital setting

Work environment: diversity of brands in the same hospital



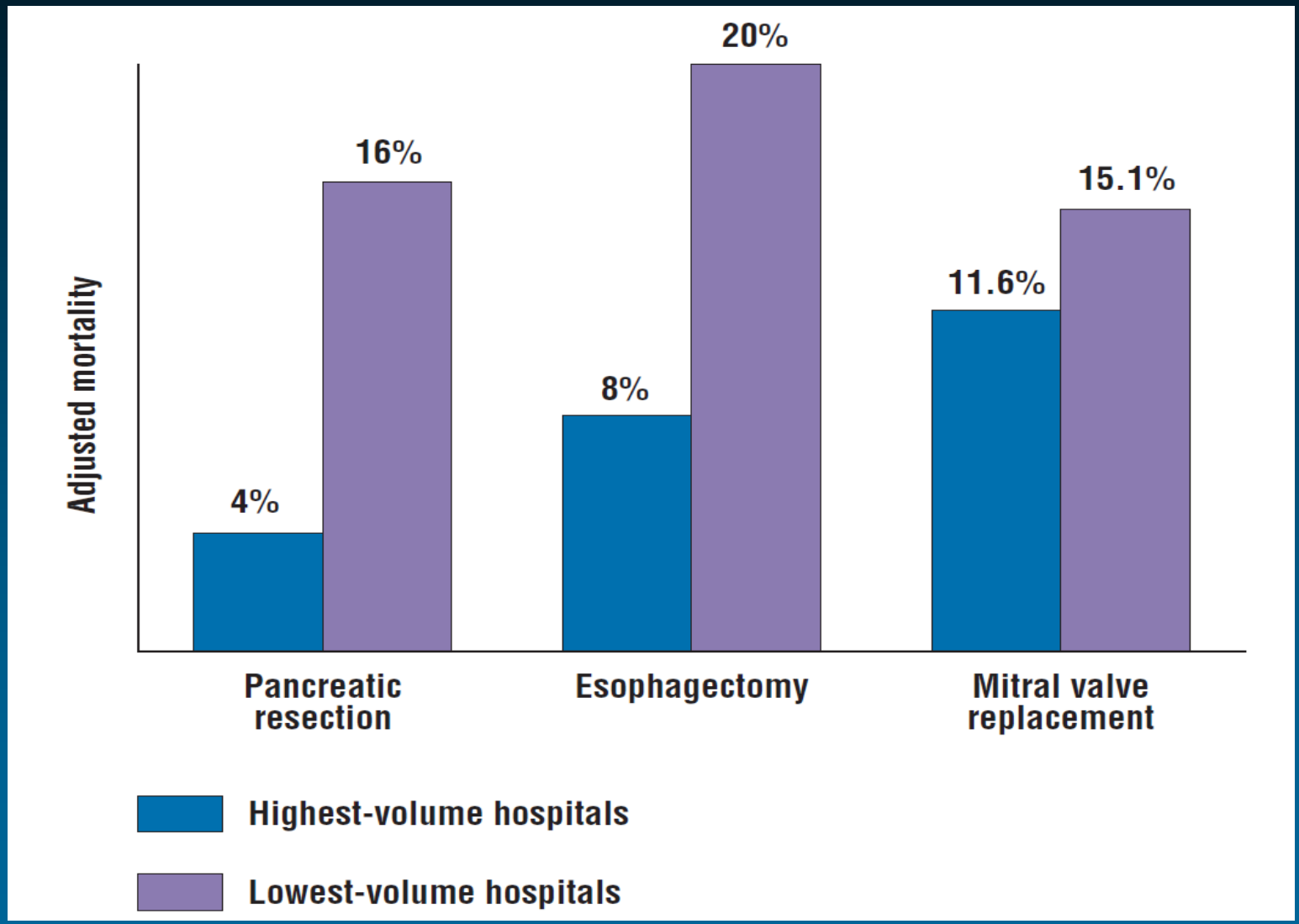


Causes Related to Organization: Survival of CPR and time of Defibrillation



Michael Colquhoun ,1999

Causes Related to management Hospital Volume and Surgical Mortality



Birkmeier et al. NEJM 346(15) 1128-37, 2002

4

What can we do to prevent medical errors?

Blame and shame game ➡ Systems Thinking

Systems thinking

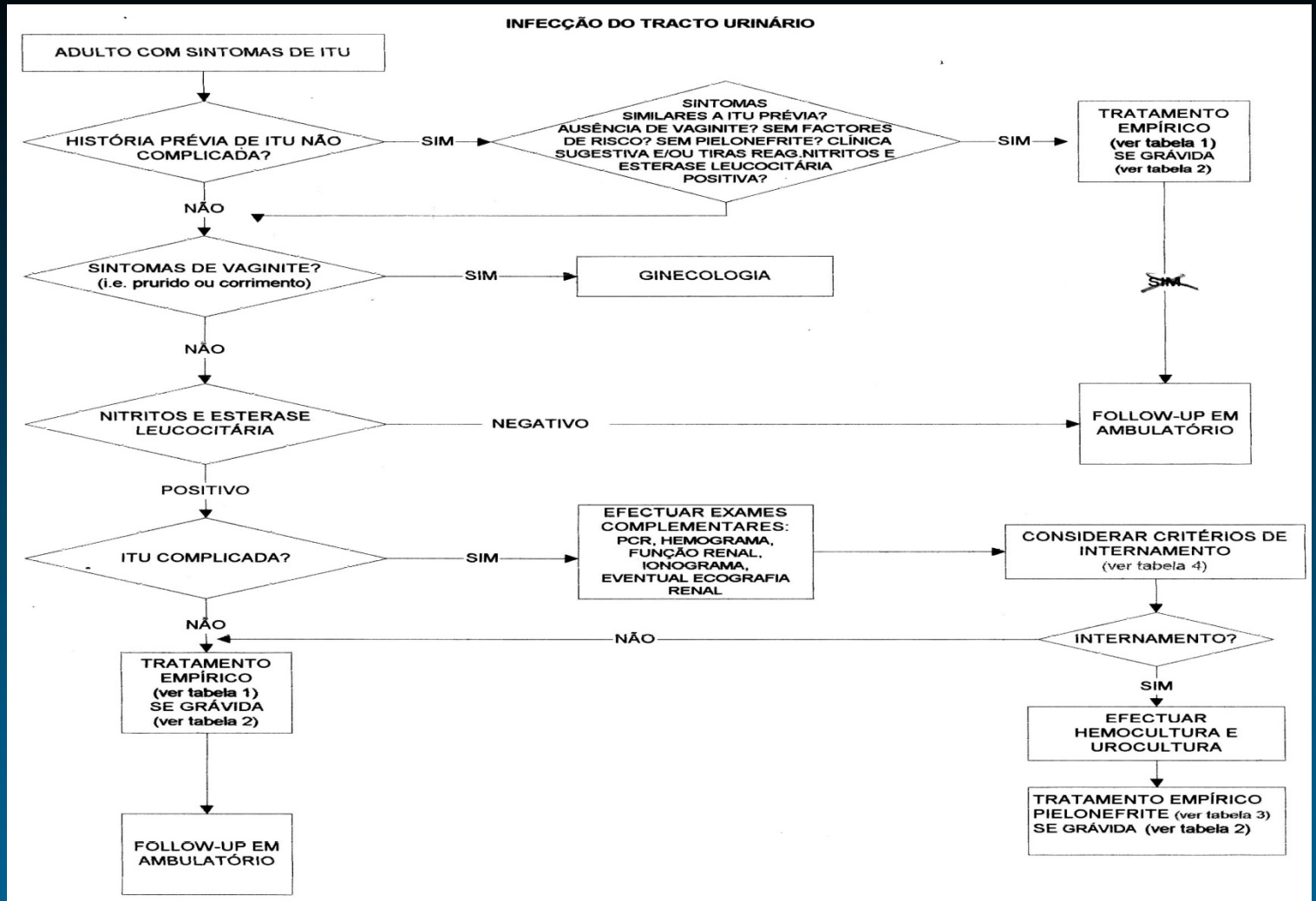
Humans err, the safety depends on creating systems that anticipate errors and either prevent or catch them before they cause harm

General principles of patient safety improvement strategies

- Improve culture of safety
- Create incident reporting systems
- Standartization and simplification of processes
- Introduce forcing functions in the interface with machines
- Improving communication and teamwork
- Learn from one`s mistakes
- Well trained, staffed and rested wokforce


WORLD ALLIANCE
for PATIENT SAFETY
Clean Care is Safer Care

The FDA Safety Information and Adverse Event Reporting Program

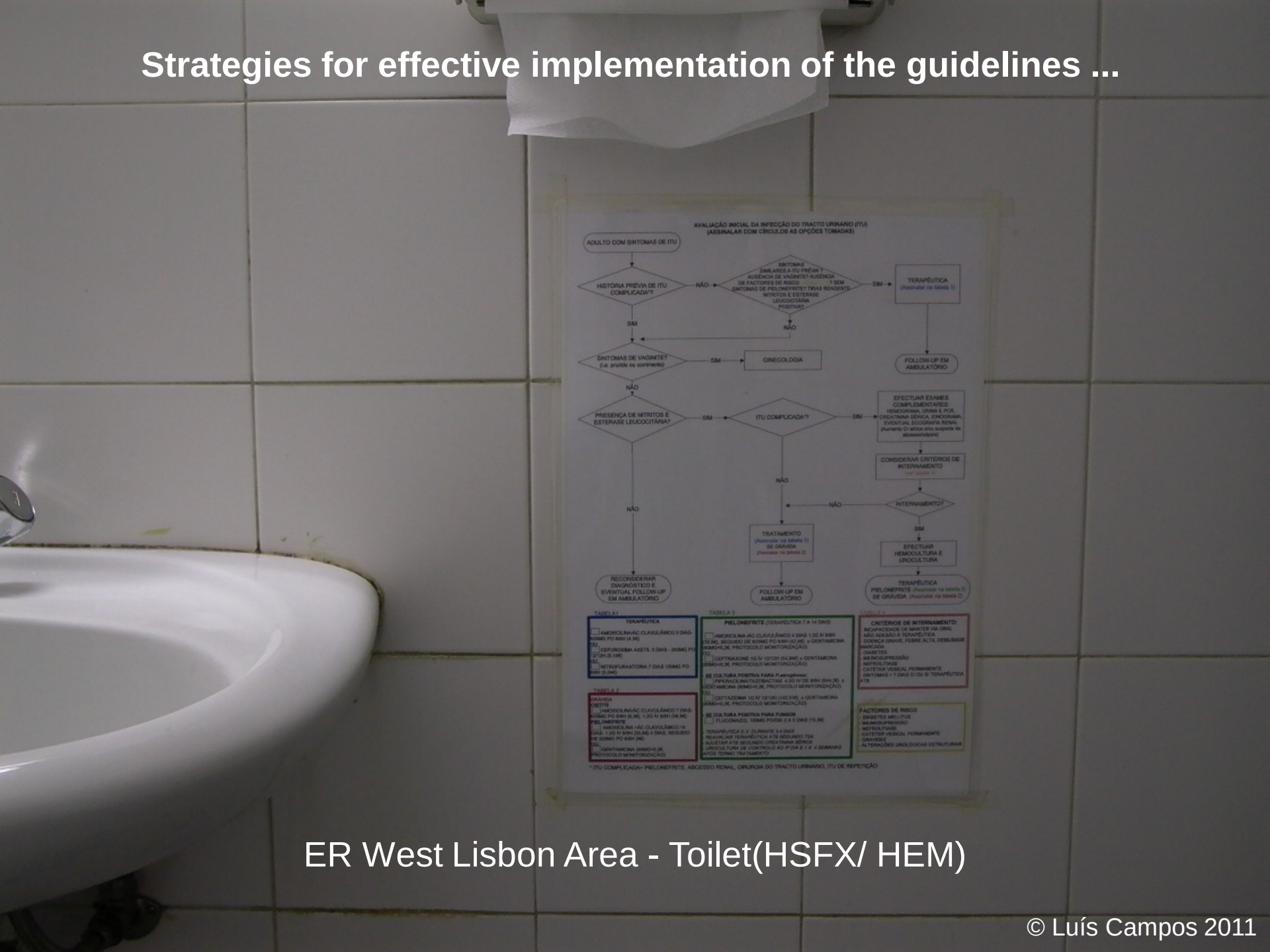


Protocol for UTI

Urgency of west metropolitan lisbon area (HSFX/HEM)

2004

Strategies for effective implementation of the guidelines ...



ER West Lisbon Area - Toilet(HSFX/ HEM)

Design of joints for medical gases

Impact of the implementation of ICT in quality of care

	Impact on care
computerized reminders (Kuperman GJ, 1999; Dexter PR, 2005, Shojania KG, 2009)	Effective in behavior change, but less evidence in results
Access to health information (Mc Gowan JL, 2009)	?
computerized prescription (Mirco A, 2005; Schiff GD, 2009; Fischer MA, 2008)	Effectiveness in reducing medication errors and reducing costs
Decision support systems (Haynes RB, 2010)	Improvement of physician performance, but less evidence in outcomes
Computerized medical education (Fordis M, 2005)	Sustained gains in knowledge

Portability is an indispensable characteristic of information technology

Internal Medicine Department HSFX Lisbon

Teamwork is the new paradigm of modern medicine…

Ward Round HSFX/CHLO 21 May 2012

Analysis of a medical error

09/04/2011
05h22m
Sala Operatória
Diário de Enfermagem

09/04/2011
05h45m
Sala Operatória
Diário de Enfermagem

09/04/2011
05h55m
Sala Operatória
Folha de Anestesia

Extracção de feto morto com malformação

Doente hemodinamicamente instável

Tentativa de colocação de CVC jugular

Paragem cárdio-respiratória

AESP

Iniciado SAV

Cardiologista, M. Interna, Anestesia, Obstetrícia

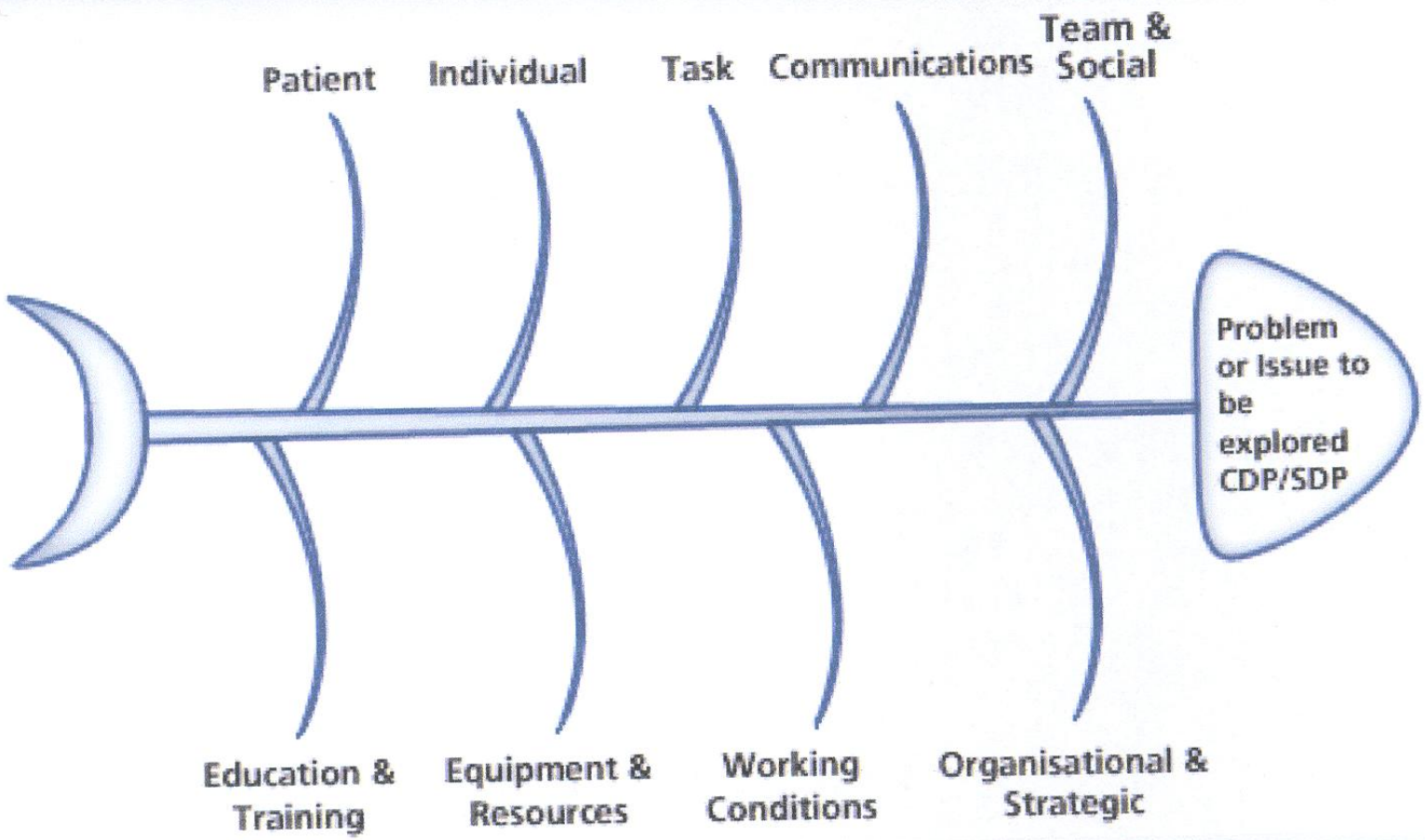
Óbito às 6h33min

Rx Tórax disponível em película às 05h30: ARDS

EcoTT (05h50): VE e cavidades direitas não dilatadas. Sem derrame pericárdico. PSAP 38. VCI 20mm

Inicial recuperação de pulso às 6h02
Nova PCR em AESP às 6h12

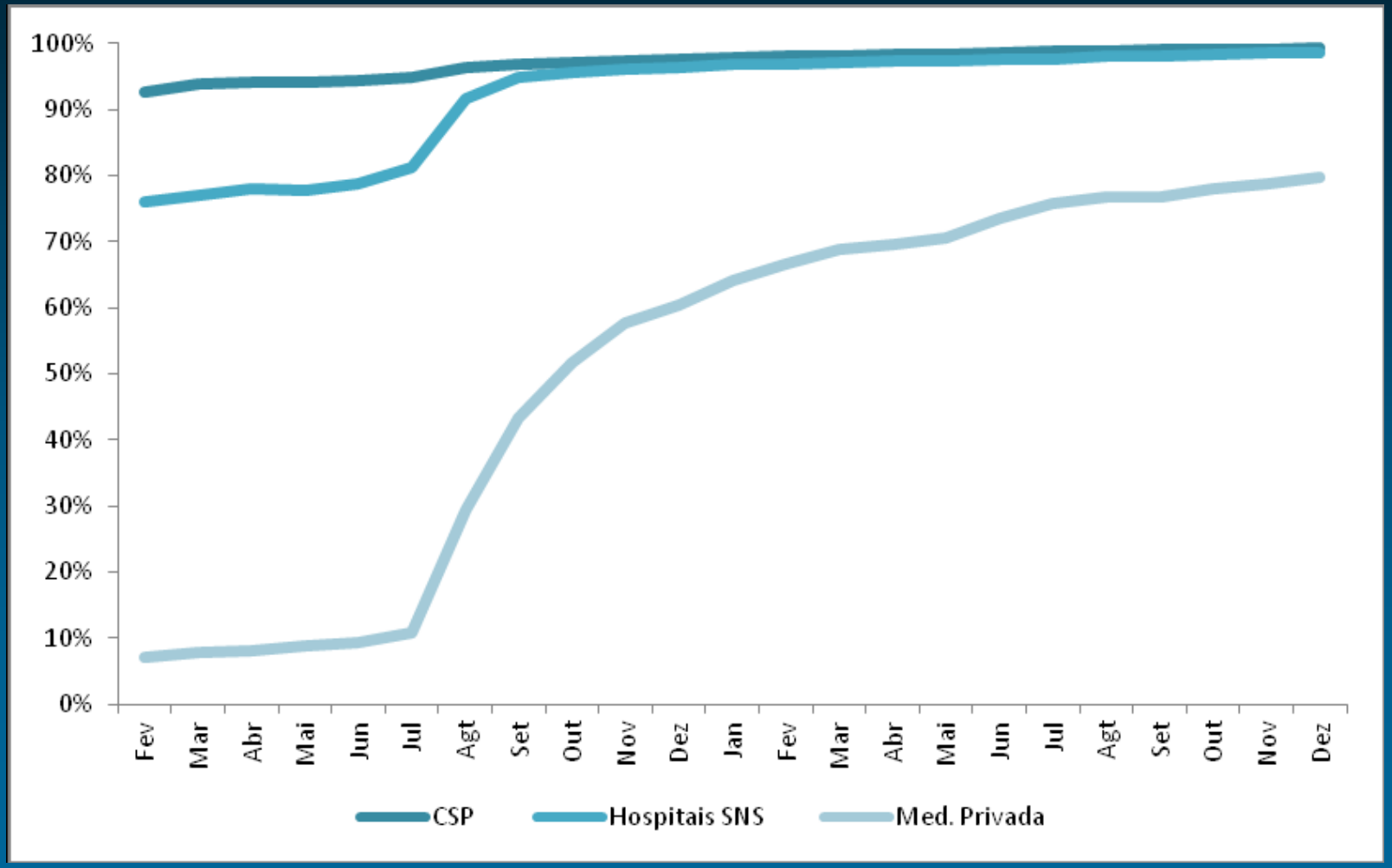
Ishikawa's Diagram



Report.npsa.nhs.uk/rzcatookit/course

Preventing medication errors

Evolution of the percentage of electronic prescription in Portugal (Feb 2011-Dec 2012)



Ministério da Saúde, 2013, Relatório de monitorização dos medicamentos de ambulatório

Prevention of surgical errors

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Effect of a Comprehensive Surgical Safety System on Patient Outcomes

- Reduction in the rate of complications from 27.3% to 16.7%
- Reduction in mortality from 1.5% to 0.8%

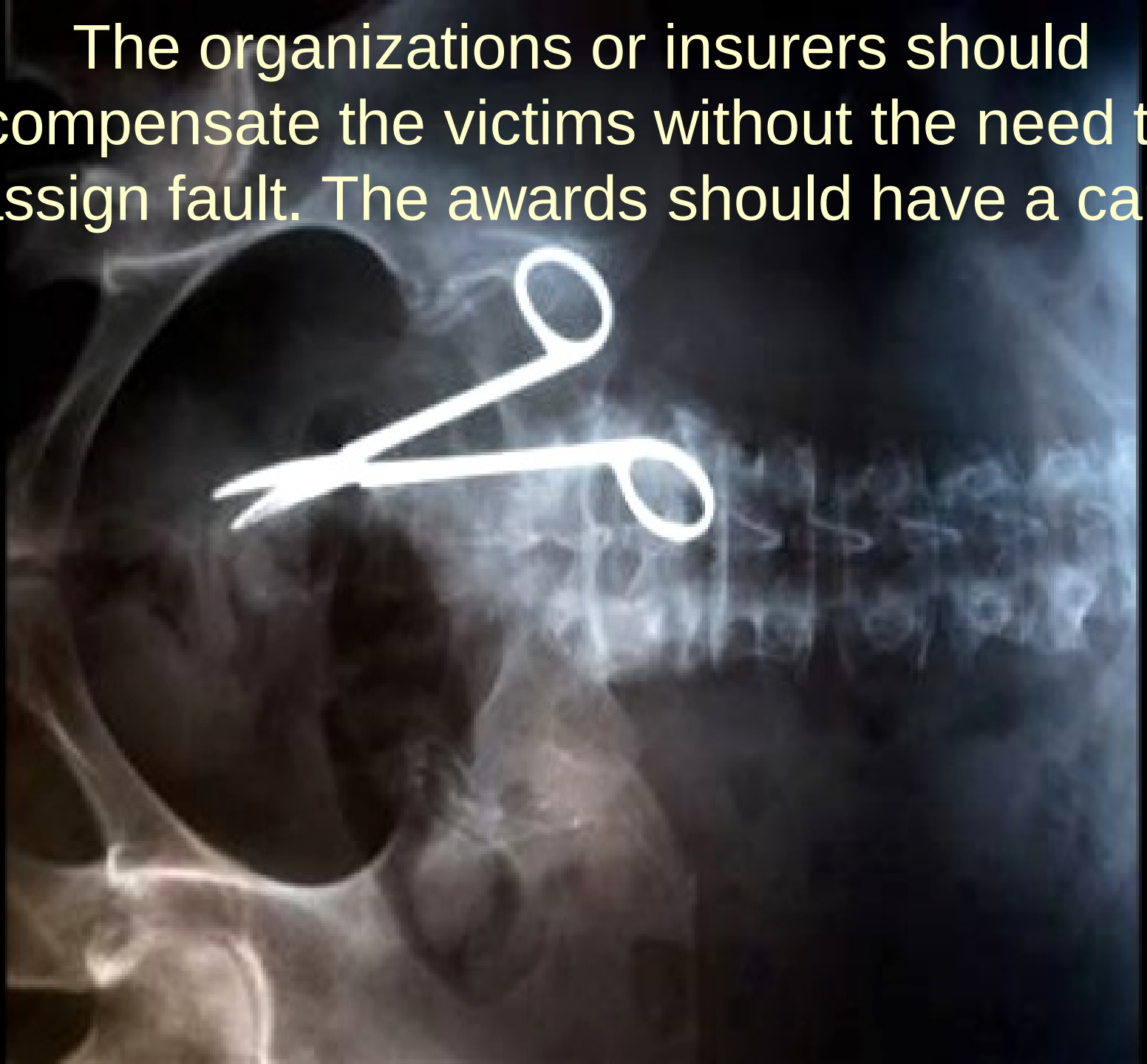
5.

Is there an alternative for a malpractice system?

An overly punitive system…

- Induces a defensive medicine
- Increases costs
- Discourages the envolvement in error report
- Stimulates adverse selection
- Deviates doctors from risk specialties

The organizations or insurers should compensate the victims without the need to assign fault. The awards should have a cap.



ERS

ENTIDADE
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DA SAÚDE

Direcção-Geral da Saúde
www.dgs.pt

Ministério da Saúde

IGAS

INSPECÇÃO-GERAL
DAS ACTIVIDADES EM SAÚDE

From the side of the patient…

- The patients have the right to know that the professionals and institutions are engaged to create a safe environment in the different settings of healthcare
- The patients have the right to informed consents
- It would be acceptable an compulsory insurance for every doctor or institution
- The patients should have access to medical charts, to a second opinion and to complain


I'm
Sorry.
© Maroon Surreal