

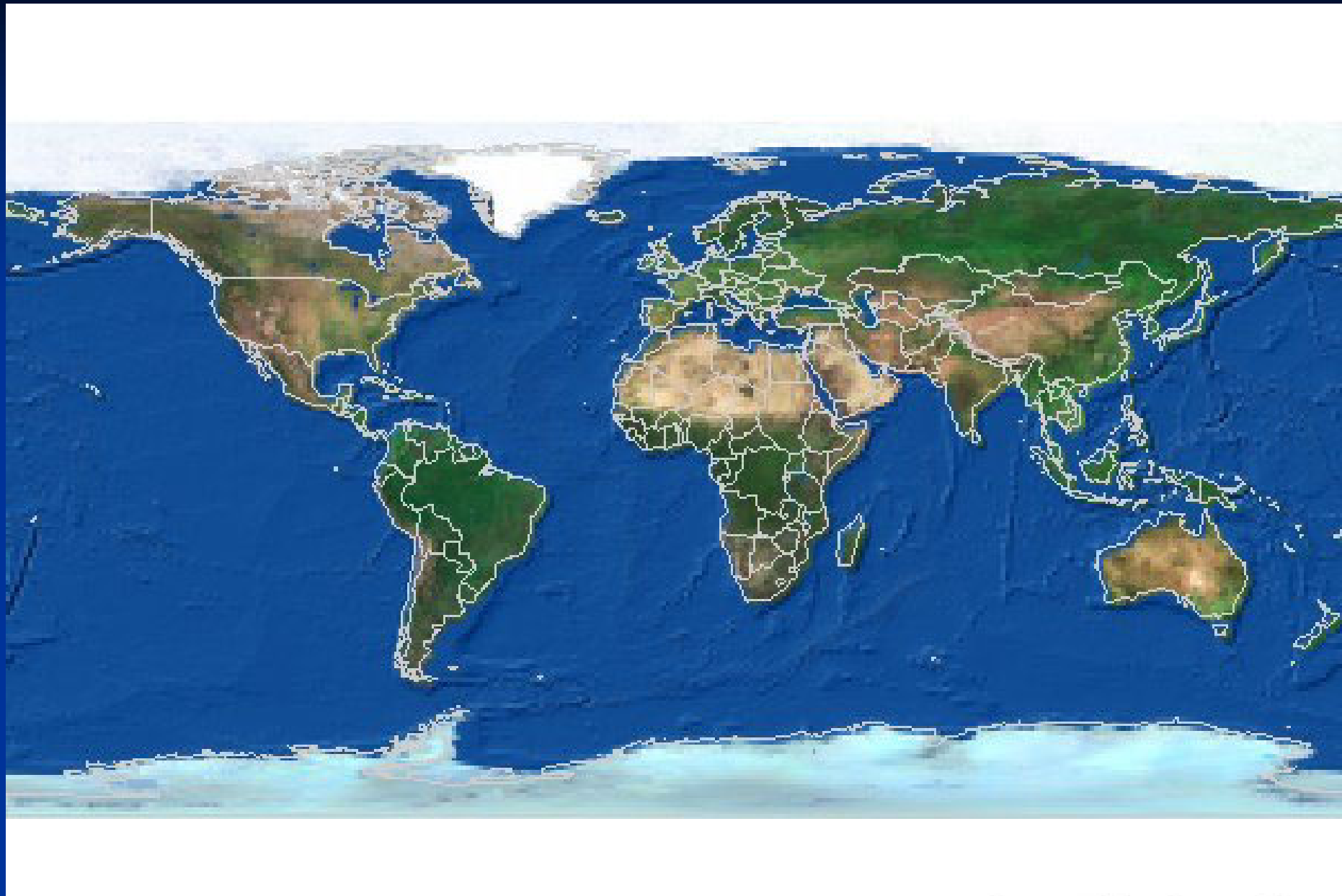
Patient Safety

- a global perspective -
- an integrated framework -

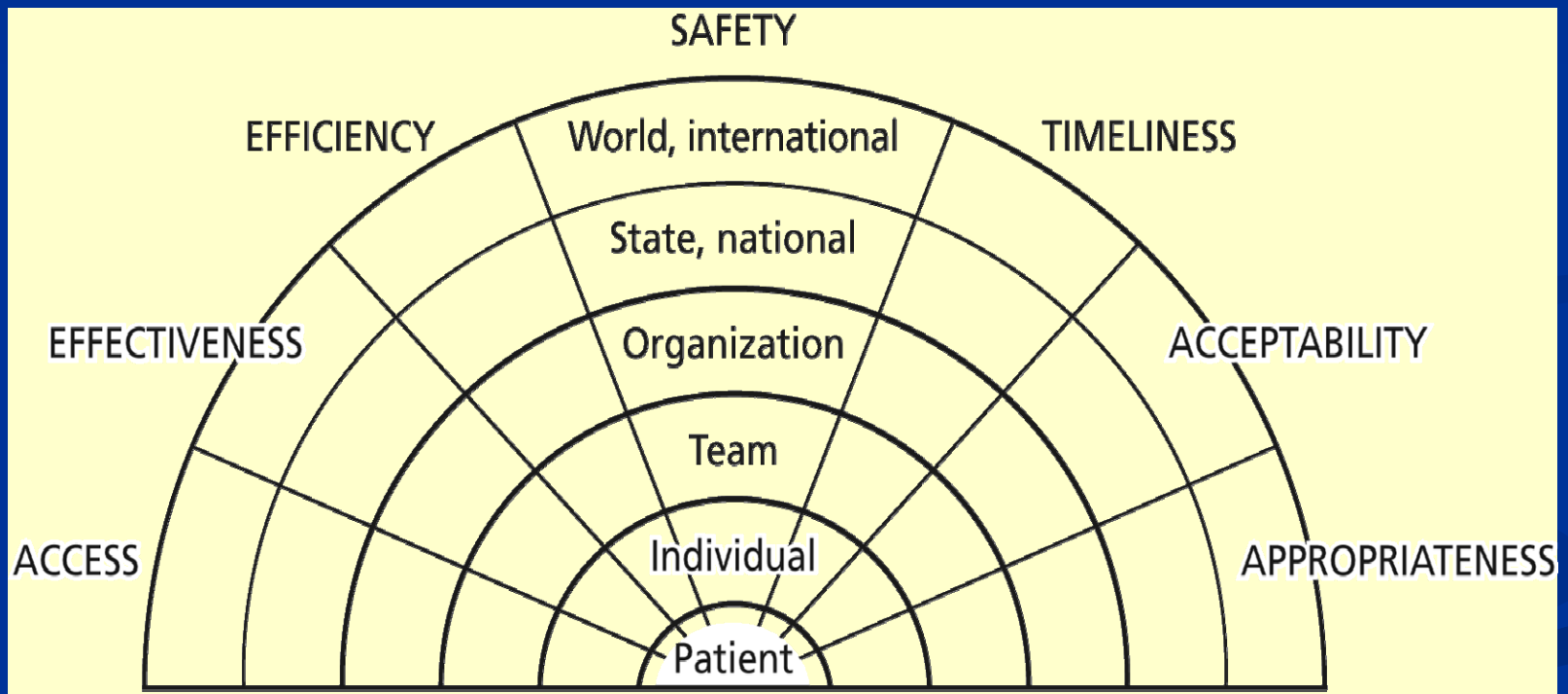
Bill Runciman

Sydney, July 27, 2007

Professorial Research Fellow – Patient Safety: University of Adelaide,
Royal Adelaide Hospital and Joanna Briggs Institute
Also: Universities of South Australia and New South Wales
President, Australian Patient Safety Foundation
Co-ordinator, International Patient Safety Classification and
Co-chair, Research Methodology Group
of the World Alliance for Patient Safety, World Health Organisation



Dimensions of Quality



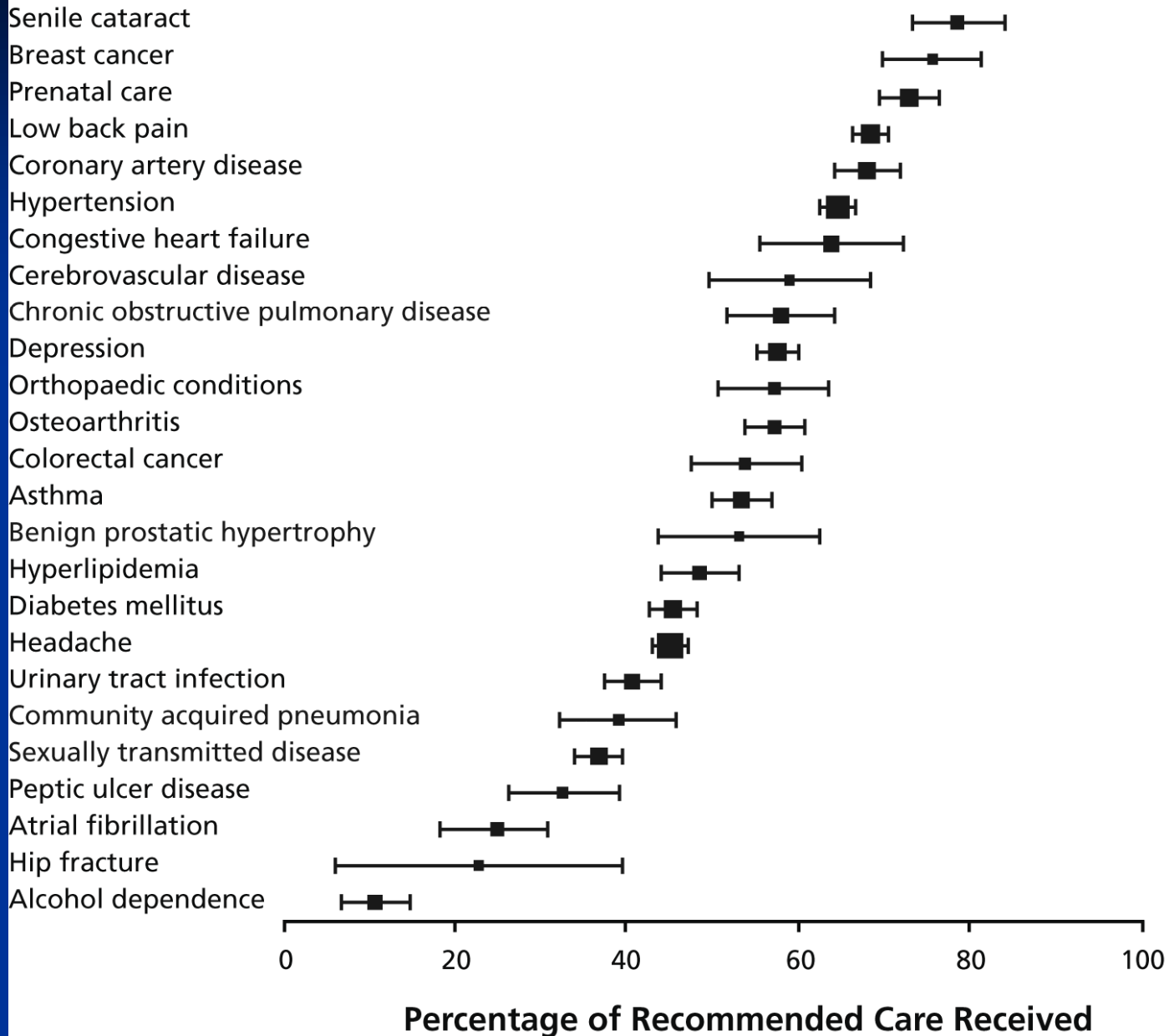
- Error -

- The use of a wrong plan to achieve an aim, or failure to carry out an action as planned

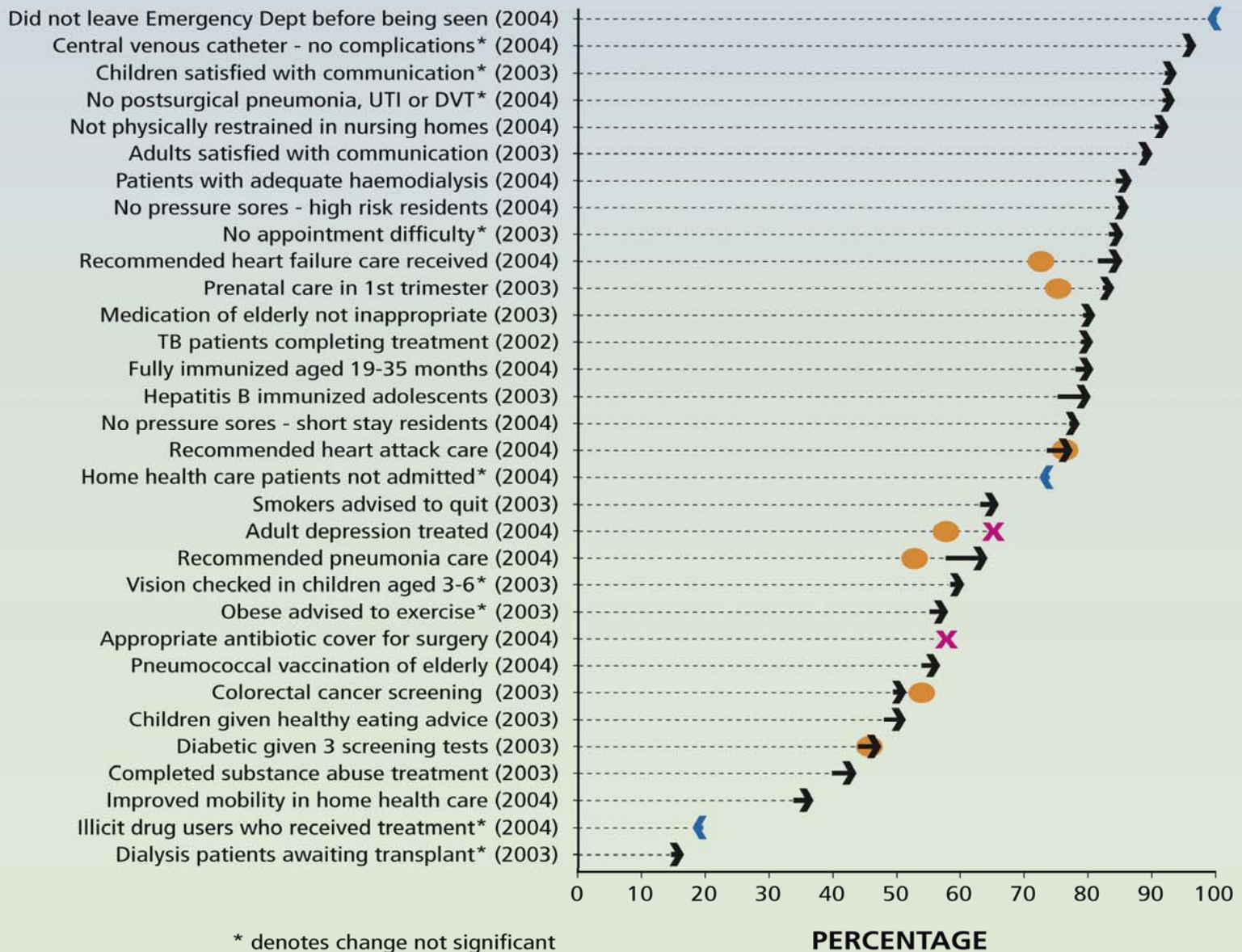
- Error -

- The use of a **wrong plan** to achieve an aim, or failure to carry out an action as planned

Condition



% OF ELIGIBLE PATIENTS WHO RECEIVED RECOMMENDED OR EXPECTED CARE



- Error -

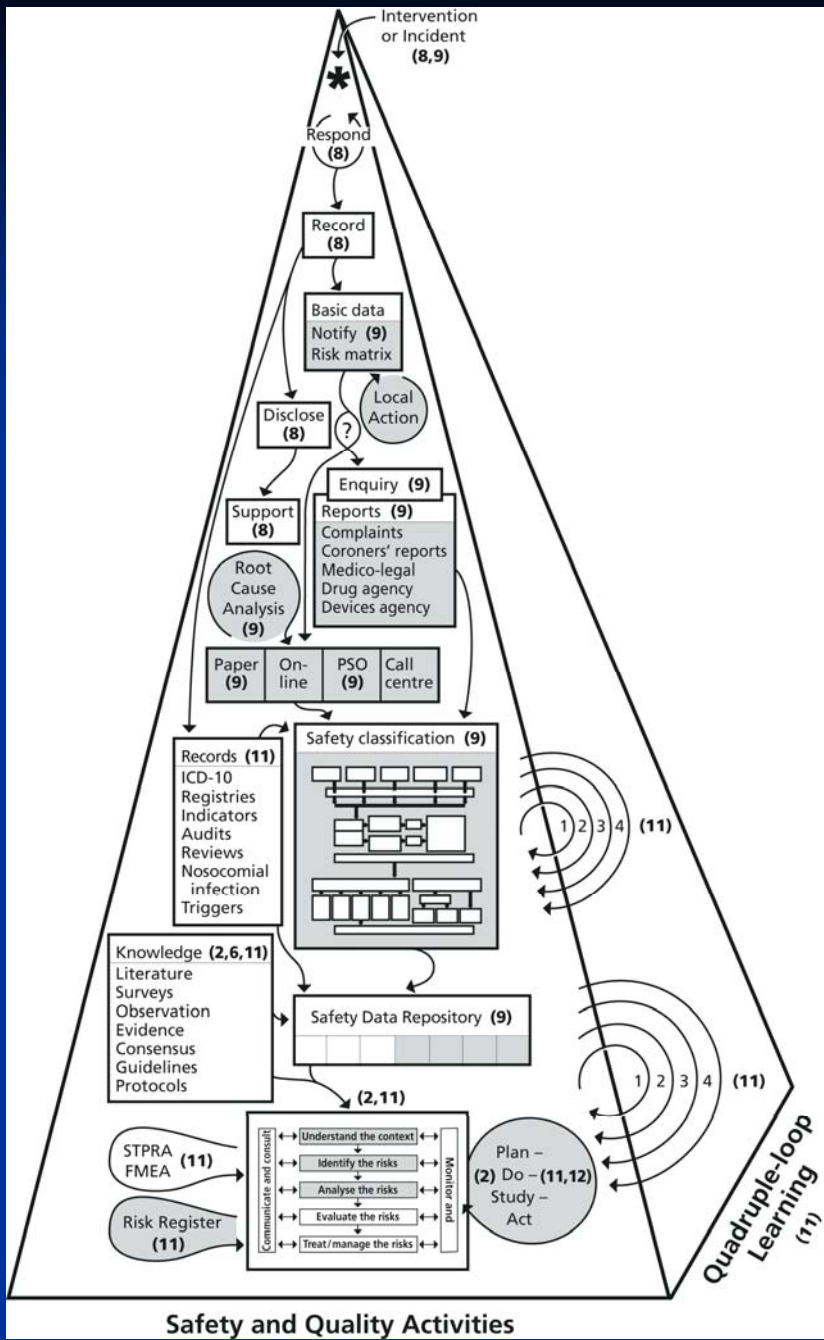
- The use of a wrong plan to achieve an aim, or **failure to carry out** an action as planned

- Failure to carry out an action as planned -

- **No harm – near miss**
- **Harm – adverse event**
- **Sentinel event ?**
- **Concepts, definitions, terms**
- **ICPS**

- Things that go wrong -

- Counting vs understanding
- Medical records – coding
- Observing and interviewing
- Reporting after the event
- Special collections



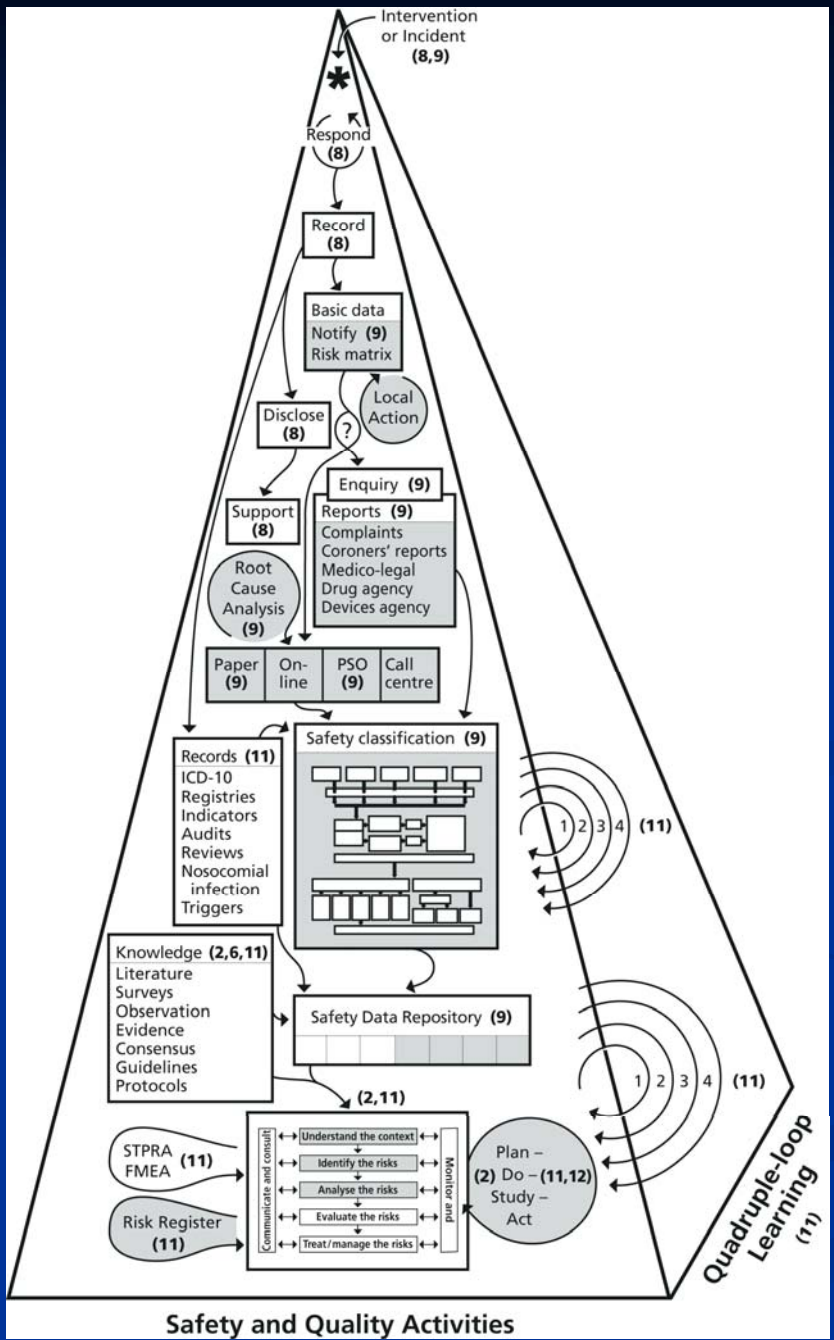
Safety and Quality Activities

Risk Matrix

Consequences

	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	12	13	11	4	1
Likely	9	15	12	6	2
Possible	11	16	7	8	4
Unlikely	8	14	9	5	4
Rare	3	6	6	2	1

Likelihood



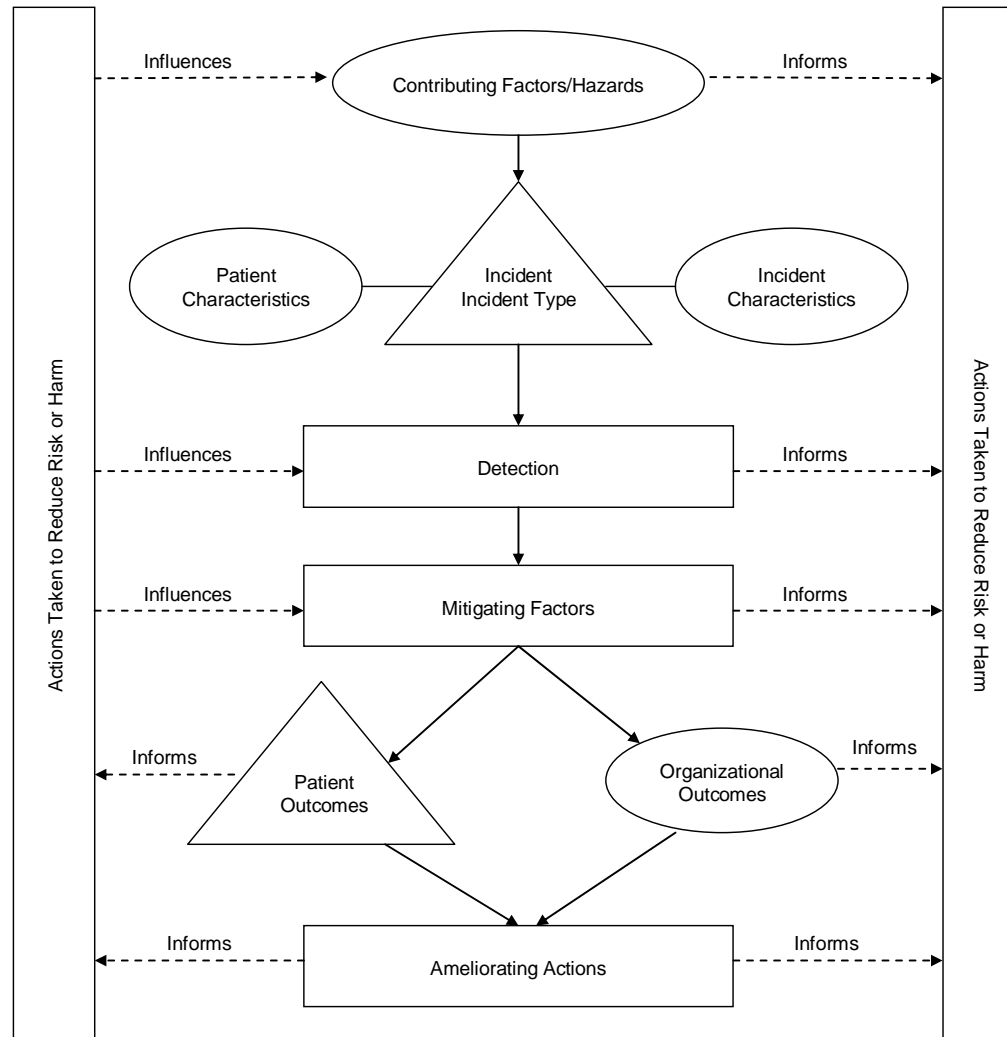
Safety and Quality Activities

- World Alliance for Patient Safety

- WHO -

- International Classification for Patient Safety (ICPS)
- Conceptual framework
- Key concepts
- Definitions
- Terms

Conceptual Framework for the International Classification for Patient Safety



- Access database -

- Sentinel event report
- Many, many hospitals
- Many primary care studies
- DIY
 - ARQH – 26 studies
 - JCAHO – PSET
 - NHS – NRLS
 - AIHW

- A Comparison - Top 20 Australian & Spanish studies -

- NCCH - Ratings 1 - 4
- PSET - National Quality Forum
- NRLS - National Health Service
- AIMS - Some states, some hospitals

The twenty principal natural categories with highest resource use from the QAHCS (1995)

PNC	Mean additional length of stay (days)	No of adverse events in each PNC	Total no. of extra days in hospital
Ongoing pain/restricted movement following back surgery	22	22	474
No, delay, inadequate investigation ischaemic heart disease	13	34	451
Wound infection following peripheral procedure	11	29	314
Incisional hernia: post-procedural	10	27	271
Postoperative bowel obstruction/adhesions	13	21	271
Injury due to fall in nursing home	12	19	219
Failed/blocked/ruptured/aneurysm, vascular grafts	13	17	215
Recurrent incisional hernia	9	20	190
Pulmonary embolism postoperatively	8	22	185
Wound infection following abdominal/retro-peritoneal/pelvic procedure	5	35	178
Catheter related urinary tract infection	5	37	174
GI bleeding secondary to NSAID	8	22	167
Diagnosis delay/no/wrong, cancer large bowel	15	9	131
Failed hip replacement	15	8	120
Problem following radiation	7	15	108
Stiffness/restricted movement following joint surgery	11	9	99
Pressure sore/decubitus ulcer	3	32	98
Postoperative atelectasis/nosocomial pneumonia	6	15	96
Pancytopenia following chemotherapy	11	8	90
Bleeding related to warfarin therapy	10	9	87

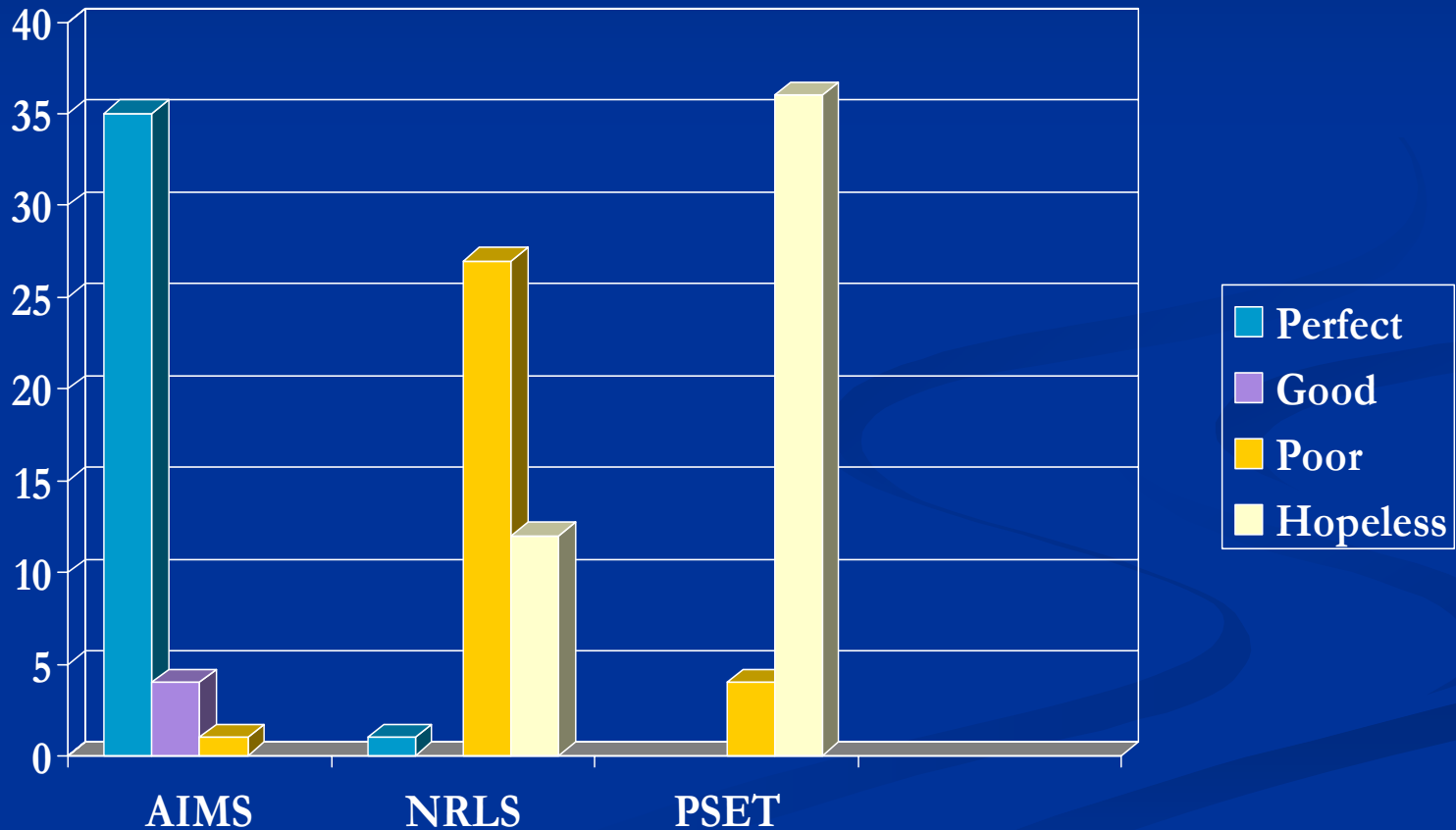
- Australian Study -

Classification Rating Score	1	2	3	4	Total
NRLS	0	0	14	6	20
PSET	0	0	2	18	20
AIMS	17	3	0	0	20

- Spanish Study -

Classification Rating Score	1	2	3	4	Total
NRLS	1	0	13	6	20
PSET	0	0	2	18	20
AIMS	18	1	1	0	20

- Australian & Spanish Adverse Events -



- Contributing Factors -

■ PSET (USA)	16
■ AIHW (OZ)	36
■ NRLS (UK)	117
■ ICPS (WHO)	54
■ AIMS	3,224

- Gas Embolism -

- AIHW - 1 case
- AIMS
 - 53 cases
 - detection
 - presentation
 - treatment
 - recommendations

-AIMS – Anaesthesia

Gas Embolism – Surgical Field

Embolism nature	Embolism source	n
air	Surgical field	24
air	Peripheral IV line	10
CO2	Surgical field	7
air	Blood warming coil	6
air	Central IV line	5
air	Radial arterial line	1
air	Frontal head injury	1

- AIMS - Anaesthesia

Gas Embolism - – Surgical Field

Primary method of detection	n
ECG	8
Capnograph	8
Oximetry	5
Human detection	1
Arterial	1

- AIMS – Anaesthesia

Gas Embolism – Surgical Field

Secondary method of detection	n
capnograph	6
oximetry	4
ECG	2
human detection	2
cvp	1
blood pressure drop	1
arterial line	1

- AIMS – Anaesthesia Gas Embolism -

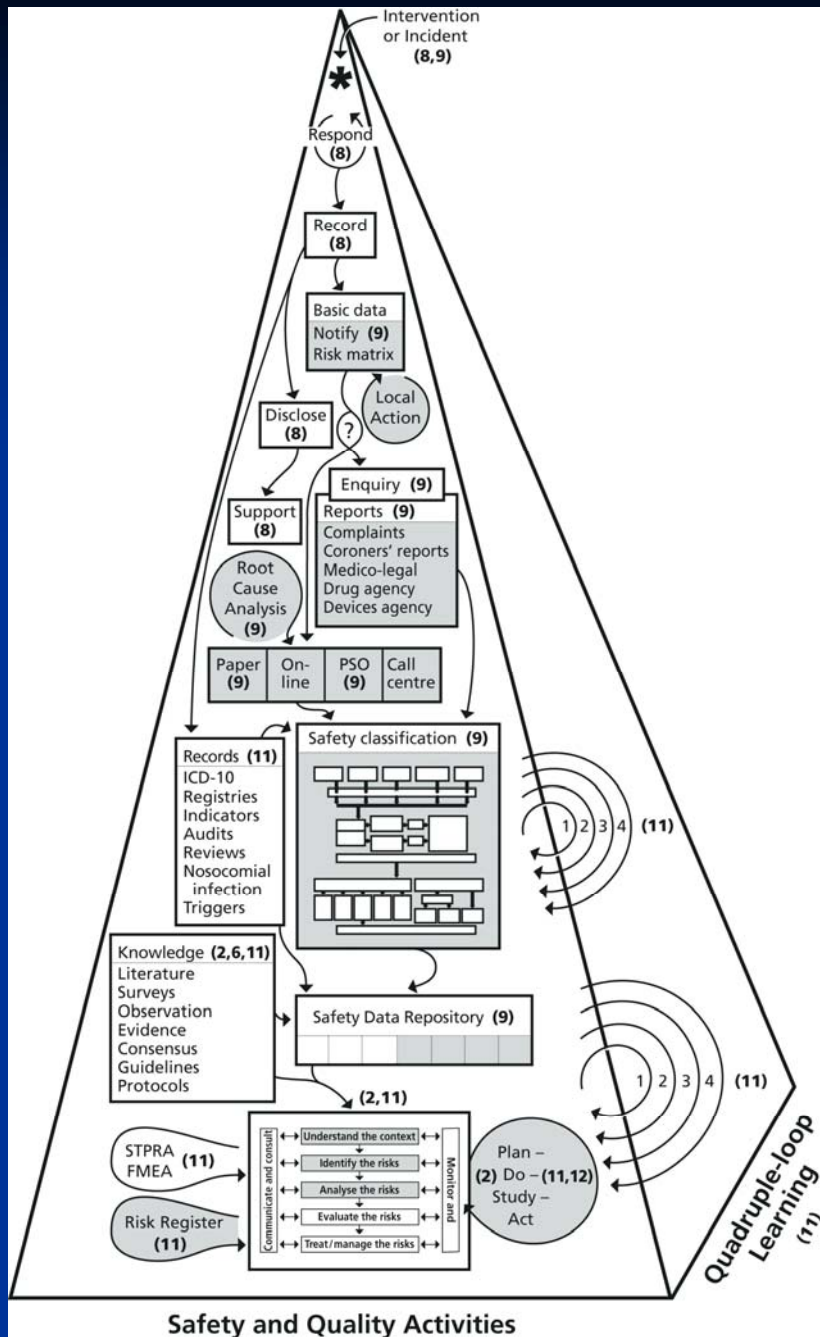
Clinical Strategy	n
Change FiO2 to 1.0	12
Administer drugs	8
Flooding surgical field	6
Head down posture	5
Increase IV fluids	4
Change to manual IPPV	3
Aspirate air via central line	2
Control the source of air	2
Patient cooled	1
Ventricular defibrillation	1

- International Classification for Patient Safety -

- Conceptual framework
- Key concepts, definitions, terms
- Slow progress – can't do from first principles
- Needs to be useable – web-based
- Negotiations/tenders - USA central database
 - UK central database
 - Europe
 - CAPS
 - Africa

-Sentinel Event Report 2004-2005 on contributing factors -

...the list of categories can be a benchmark for ... the reporting process and a starting point for developing a more robust scheme.



Safety and Quality Activities