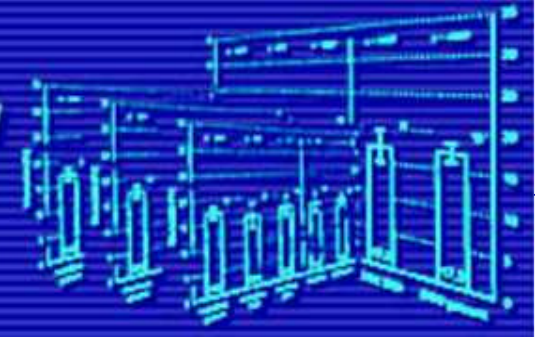


Traumaregister

Deutsche Gesellschaft für Unfallchirurgie

AG Polytrauma

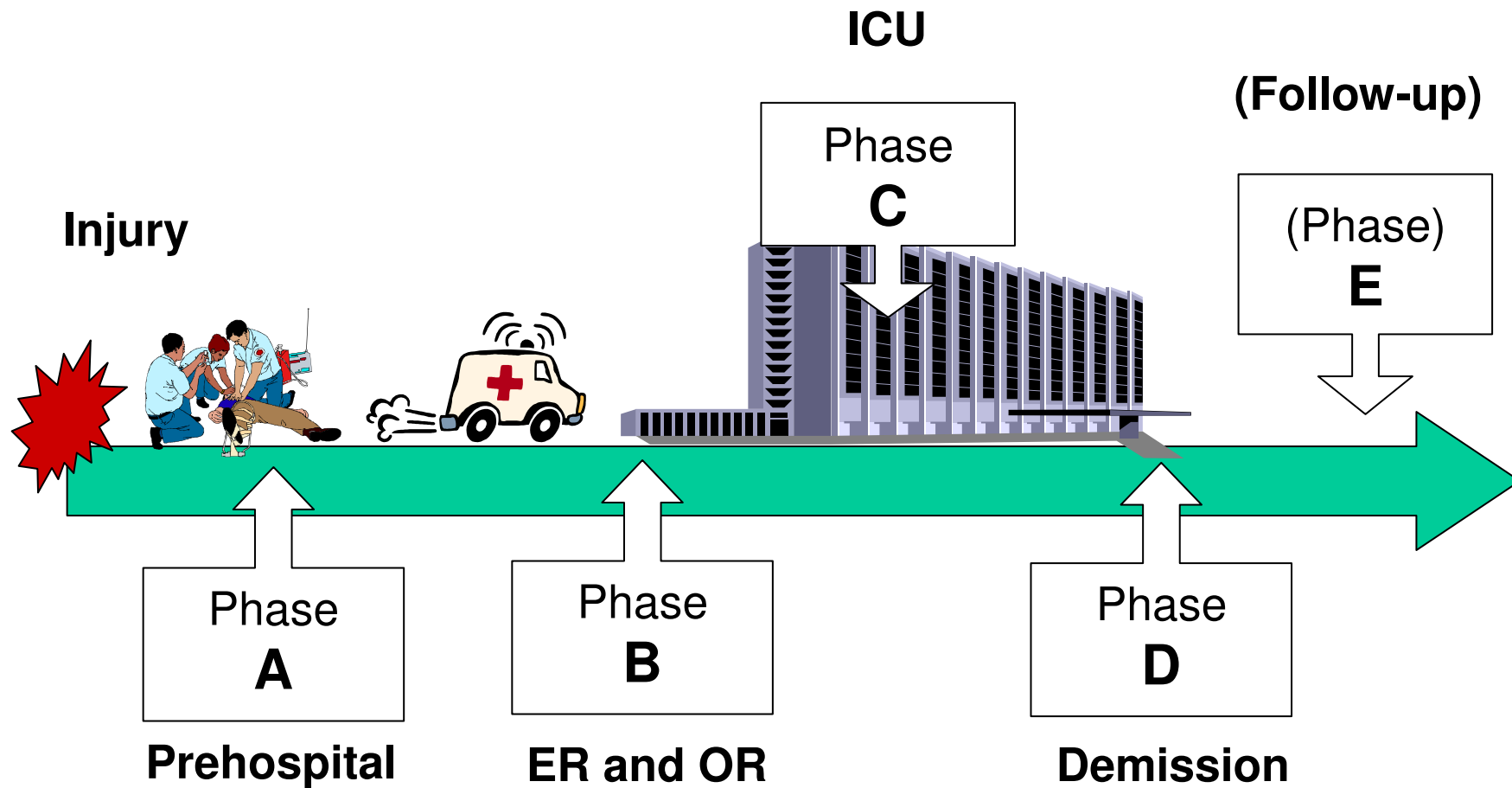


The German Trauma Registry

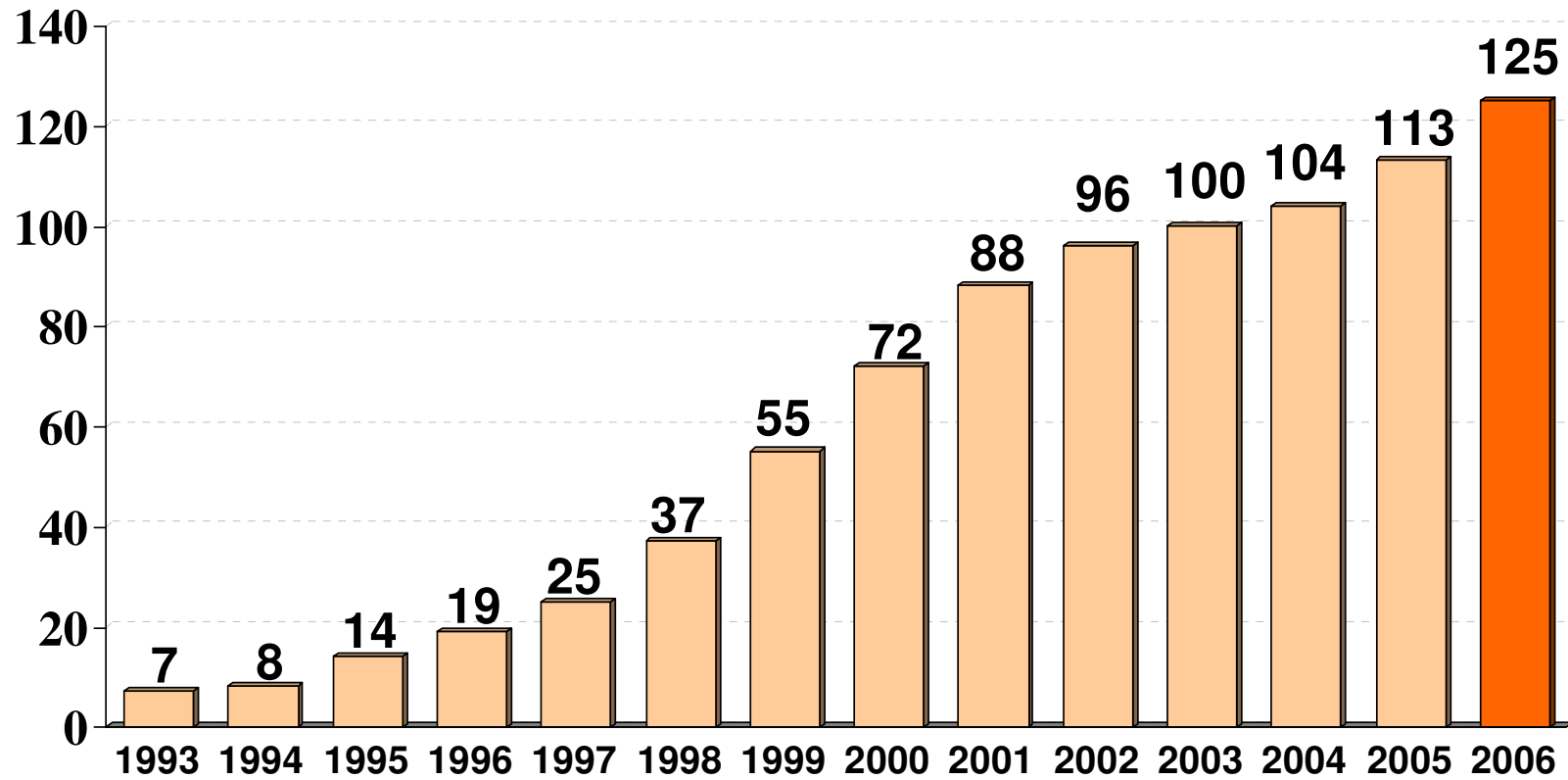
- what can it tell about bleeding ? -

Steffen Ruchholtz, Rolf Lefering, AK Traumaregister NIS

Collection of Data



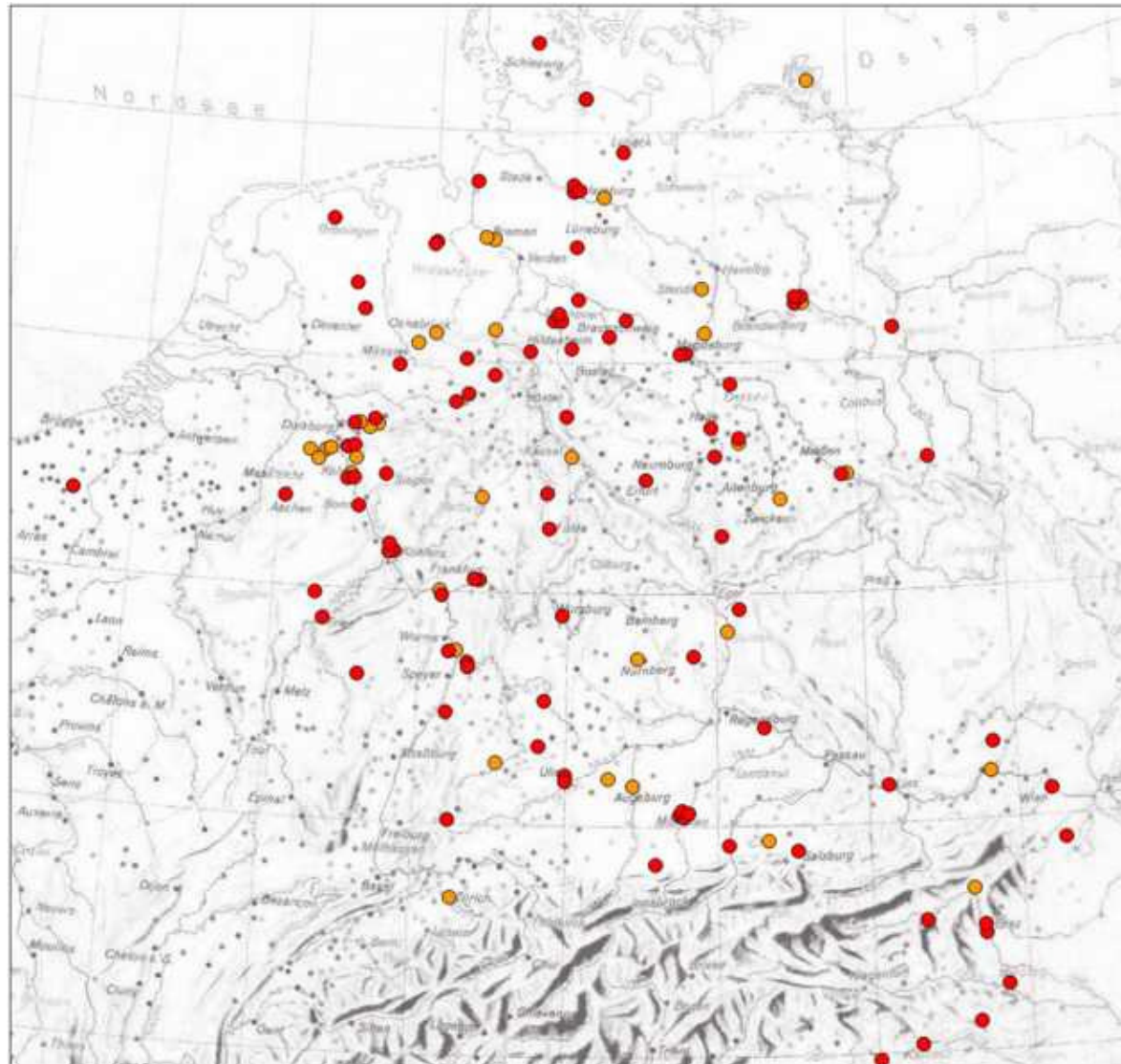
Hospitals



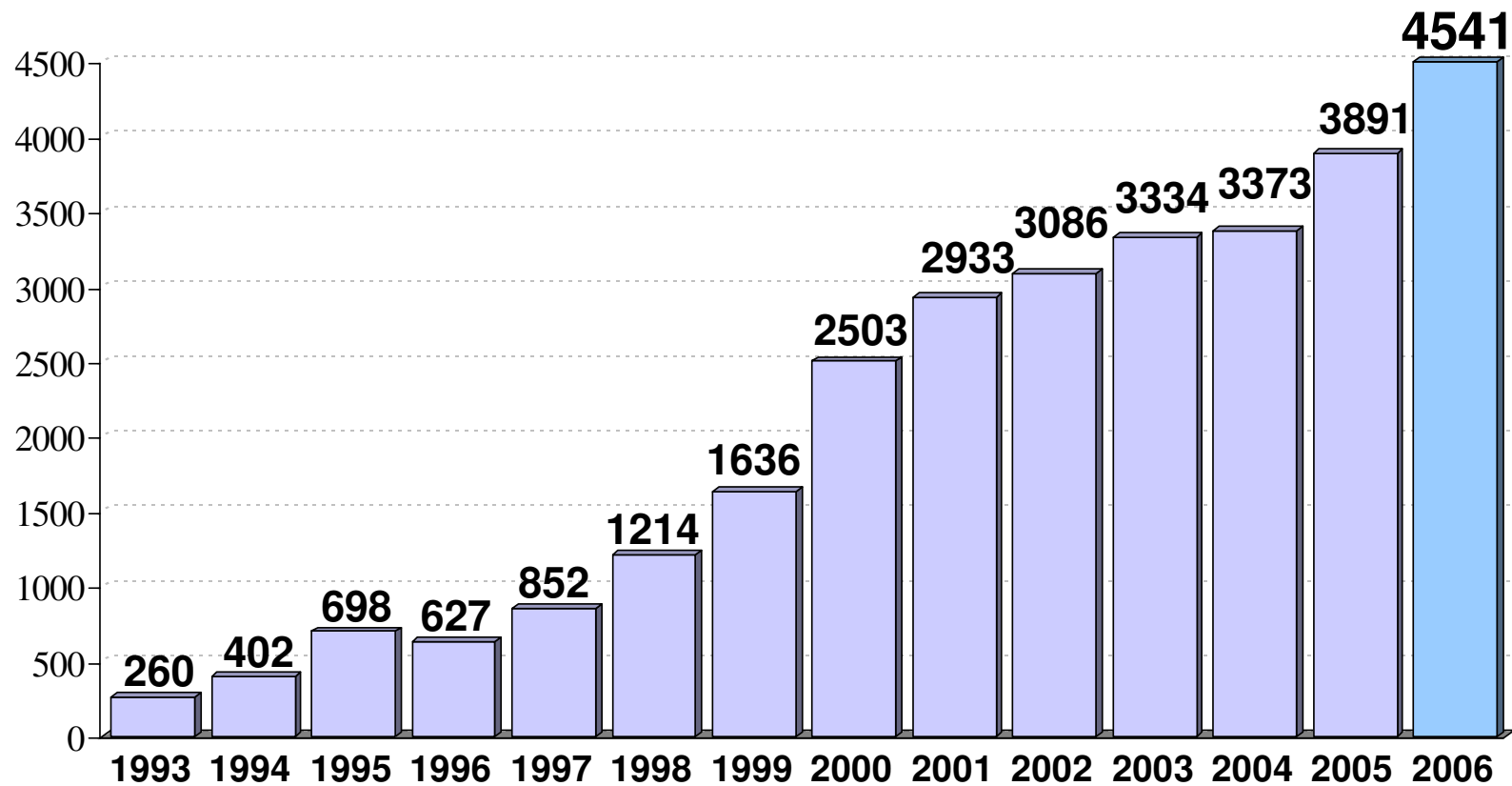
Hospitals 2006

total: 125
 aktiv 88 ●
 non aktiv 37 ●

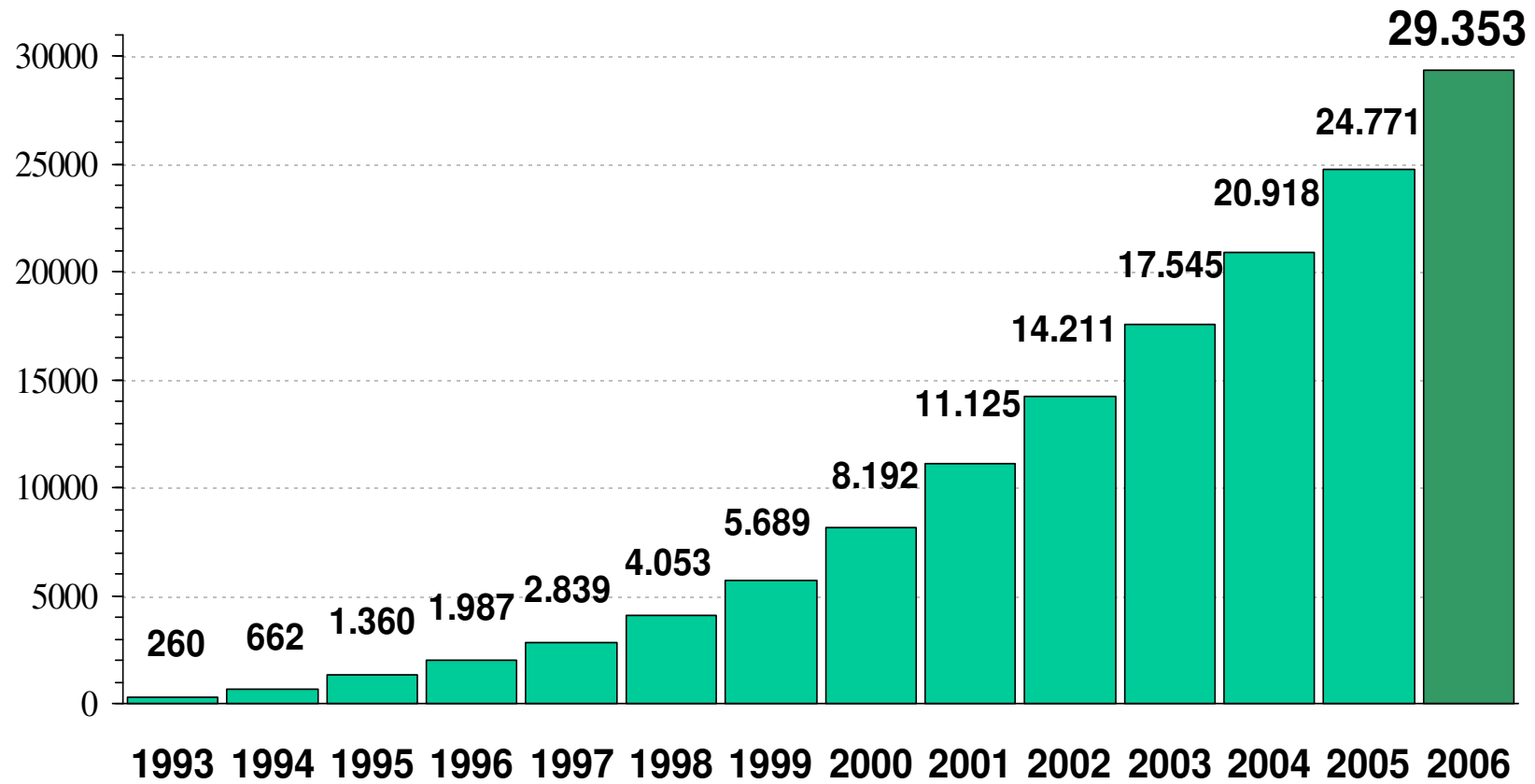
D: 108 (74)
 A: 10 (8)
 B: 1 (1)
 NL: 1 (1)
 CH: 1 (-)
 SI: 4 (4)



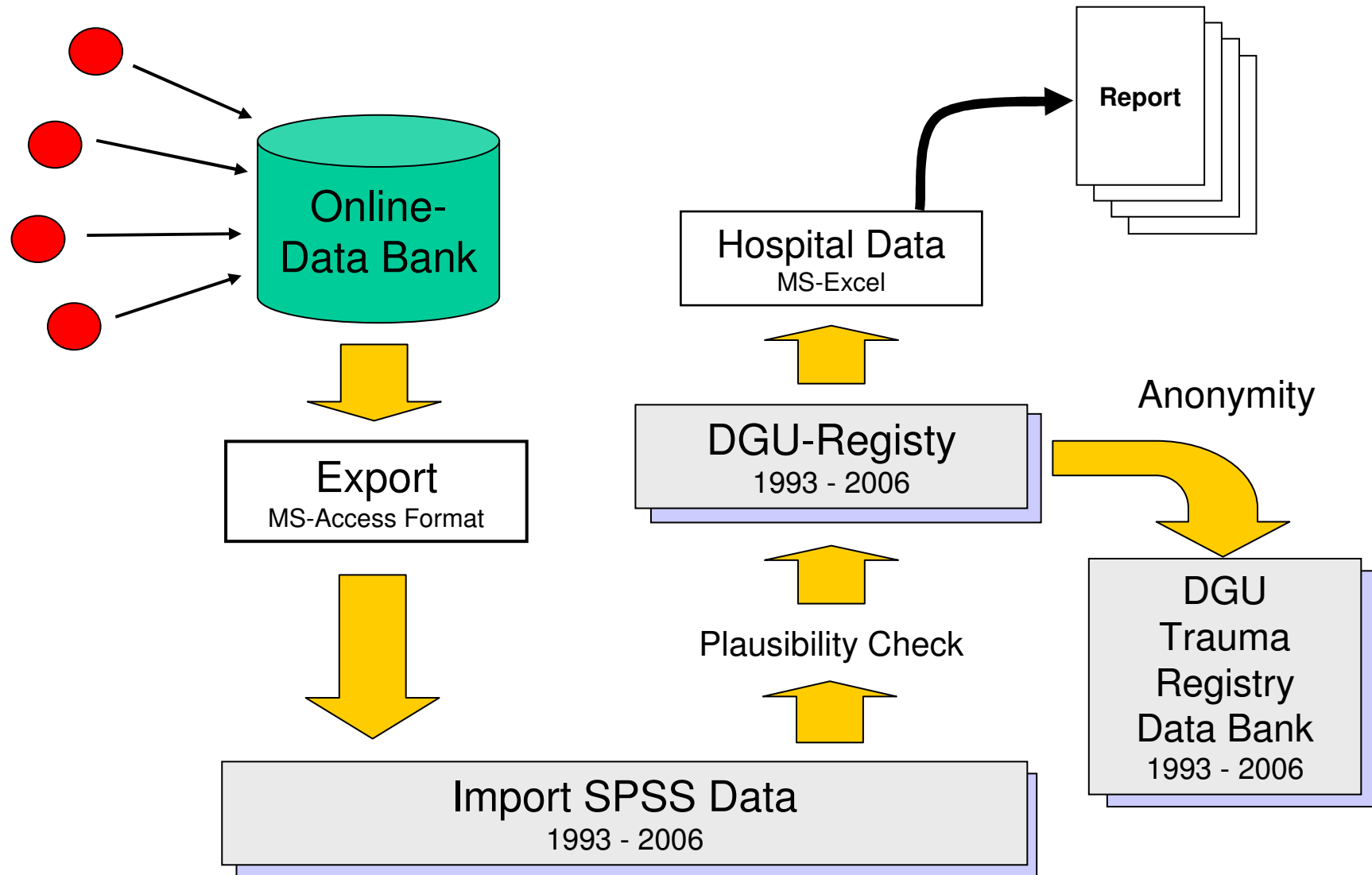
Patients / Year



Patients



Report / Data Bank



Data 2006

41 Years; 72% male; Injury Severity Score 24



Shock (RR<90mmHg): 19%

Transfusion: 26%

Haemostasis-Therapy: 8%

Emergency Surgery: 8%



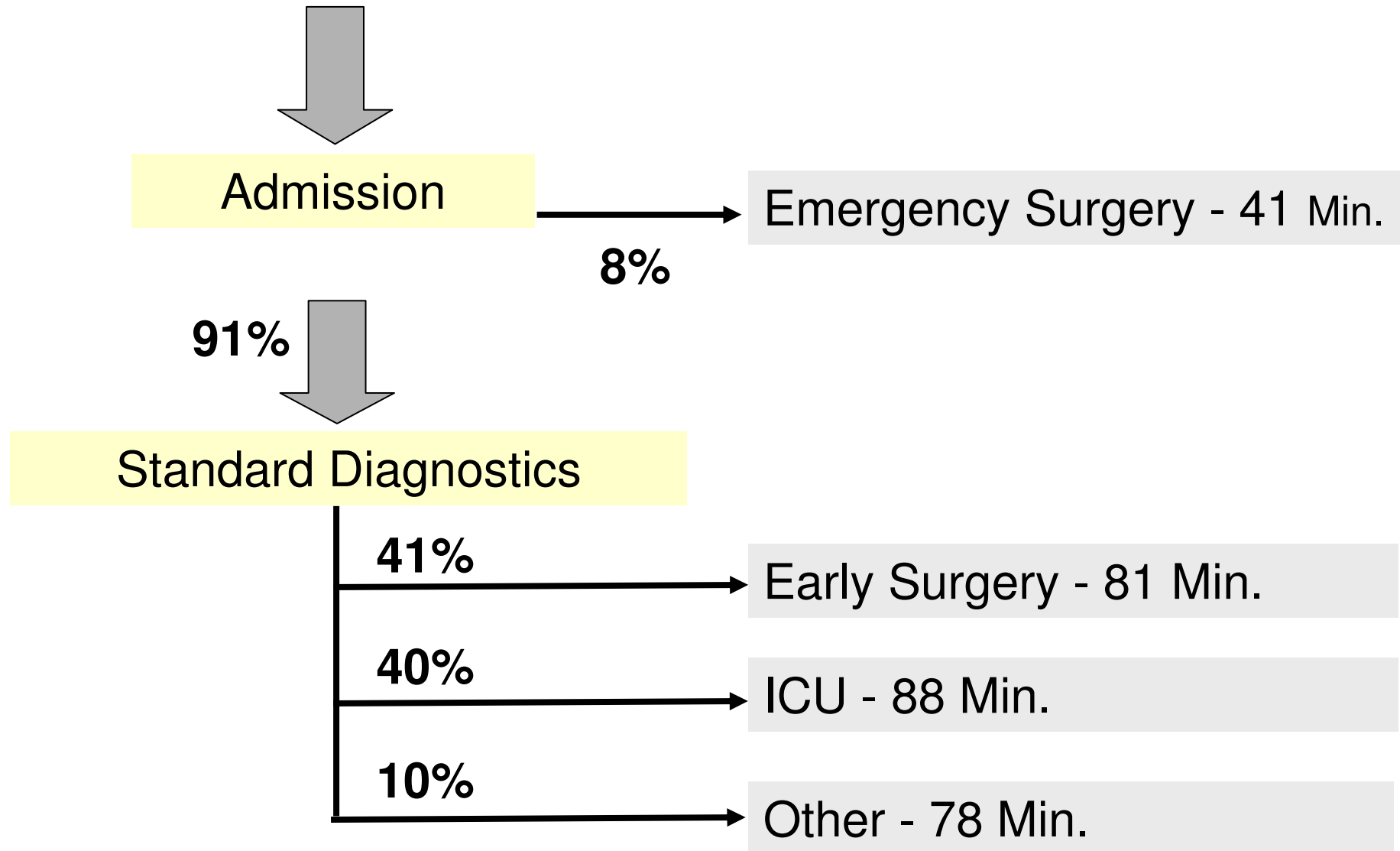
ICU: 86%

Organ Failure: 36%

ICU-Stay: 11 days

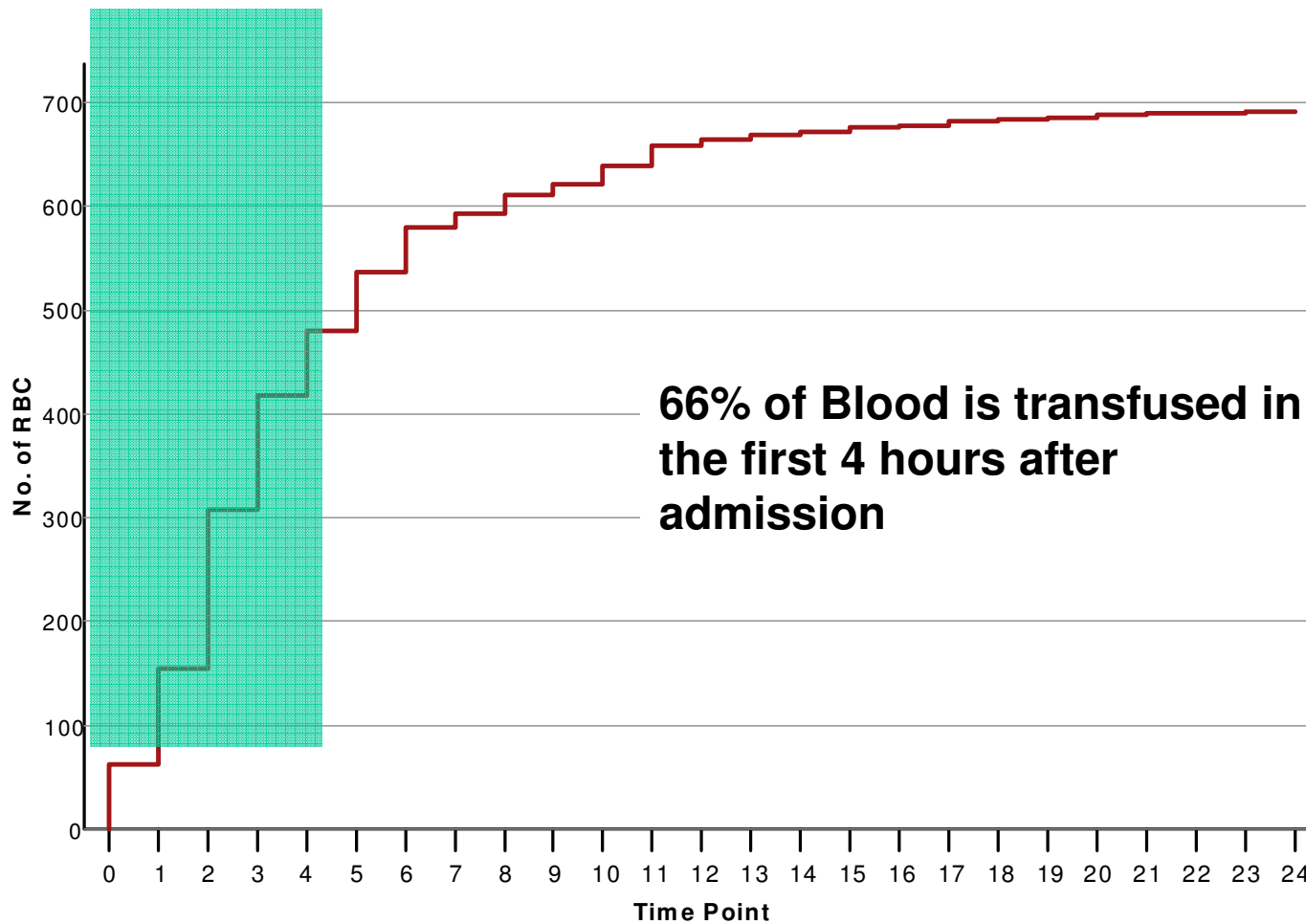
Mortality: 15% (7% in 24h)

Timing - ER



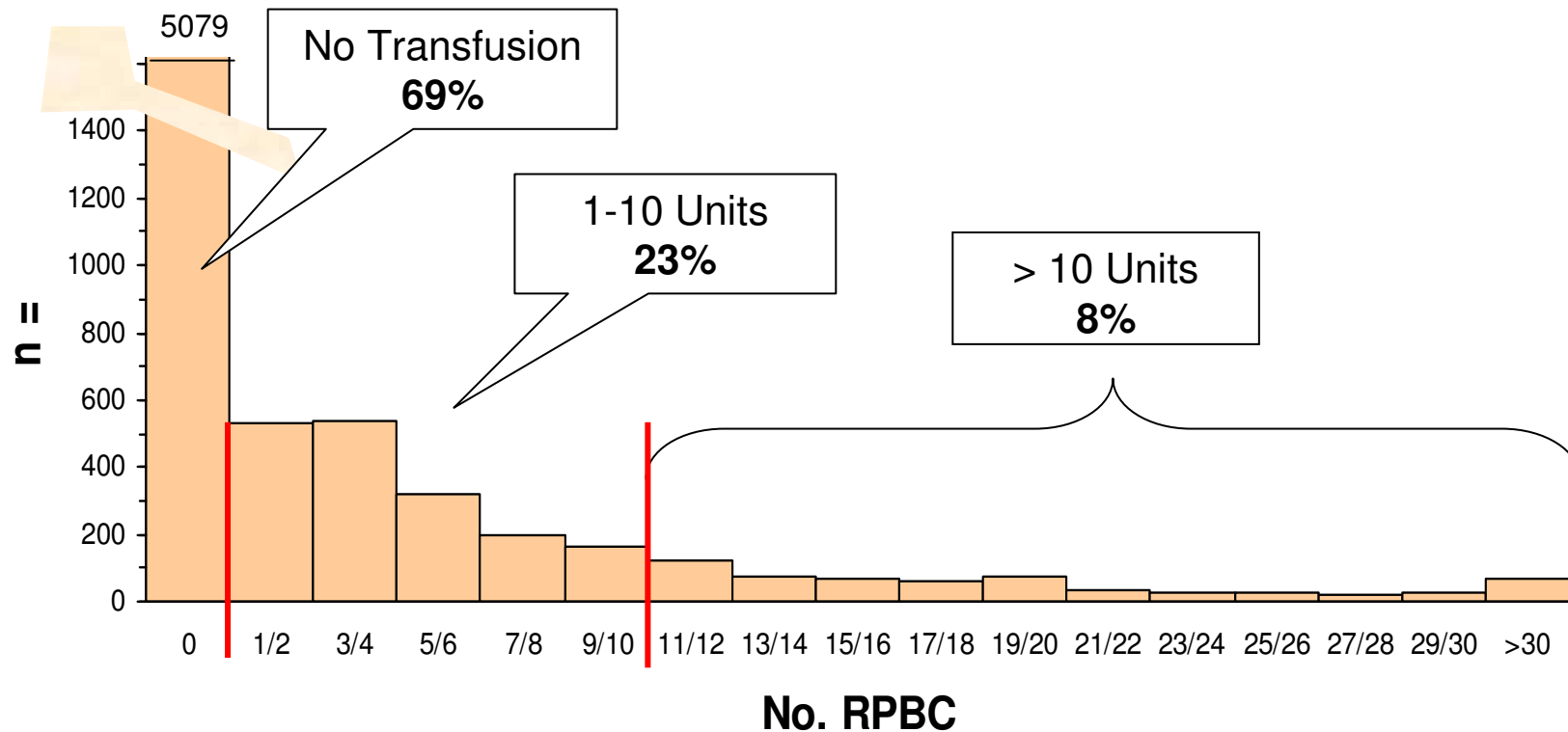
Transfusion

The first 24h : When is Blood Transfused ?



Mass Transfusion

- Incidence -



Mass Transfusion



Thorax
44%

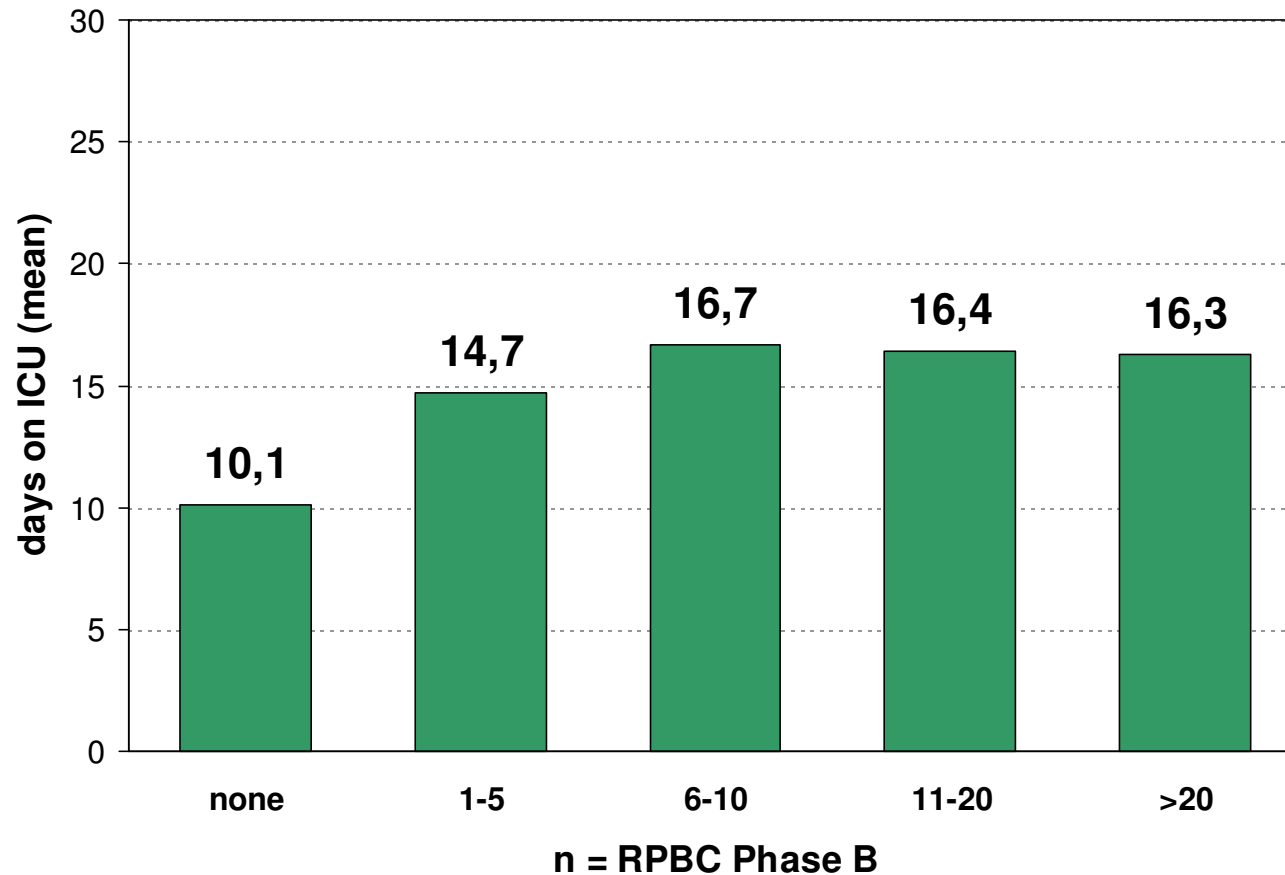
Abdomen
28%

Pelvis
25%

Abbreviated Injury Scale ≥ 3

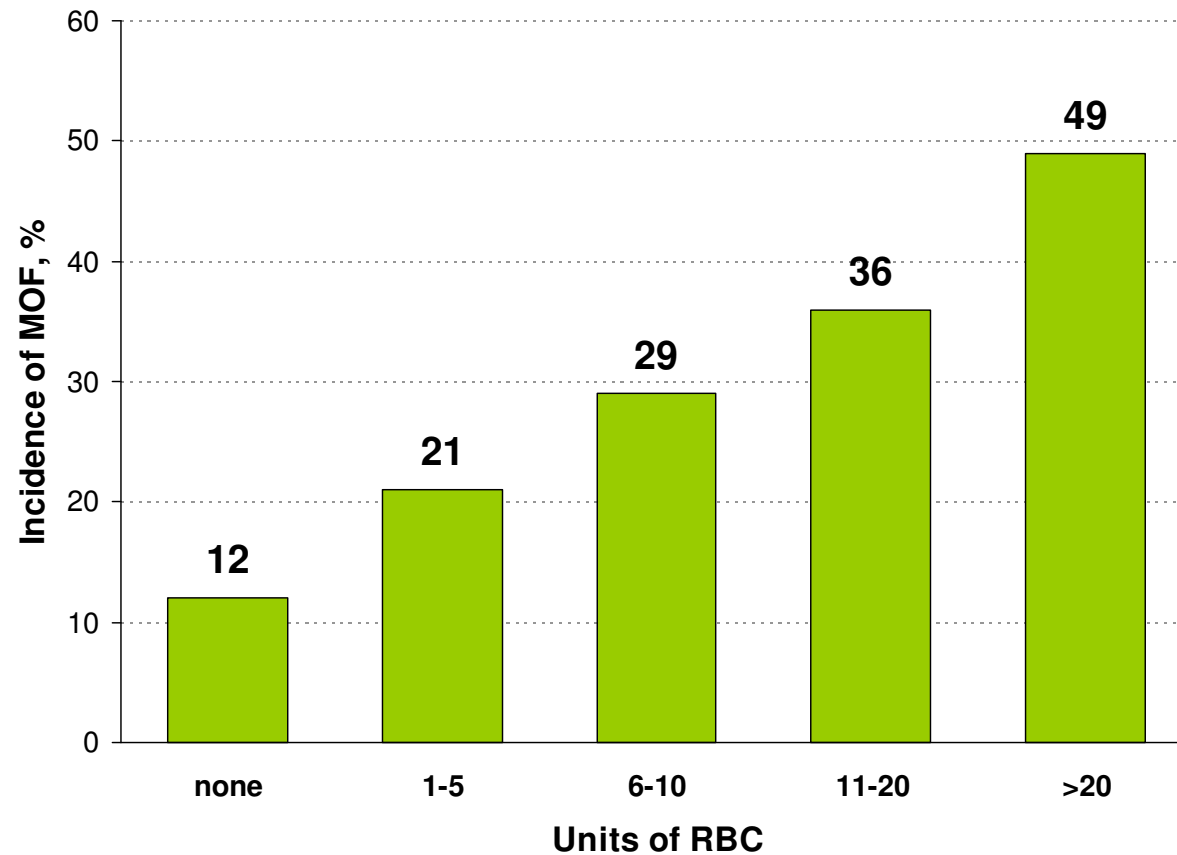
Mass Transfusion

- Stay on ICU -



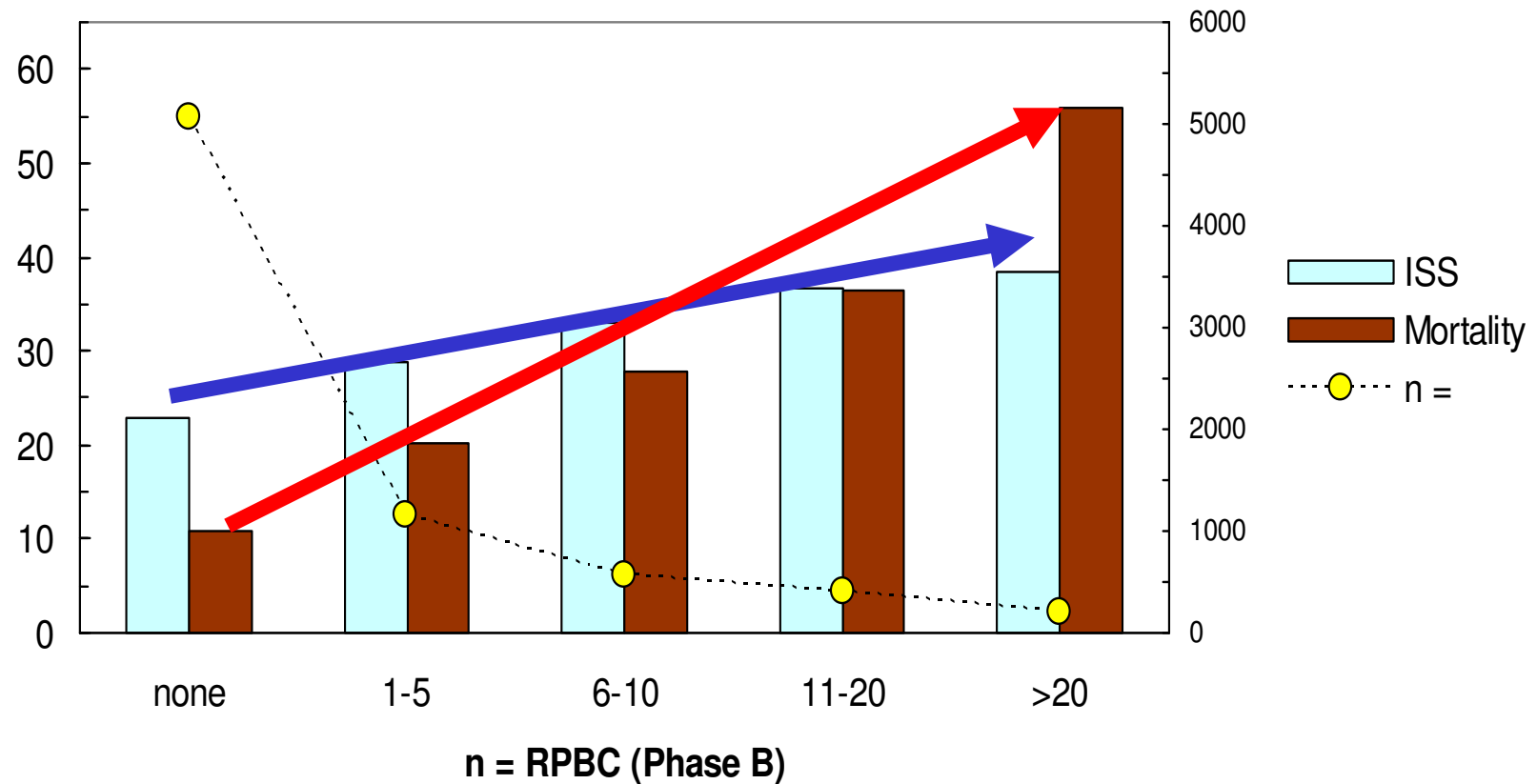
Mass Transfusion

Multiple Organ Failure

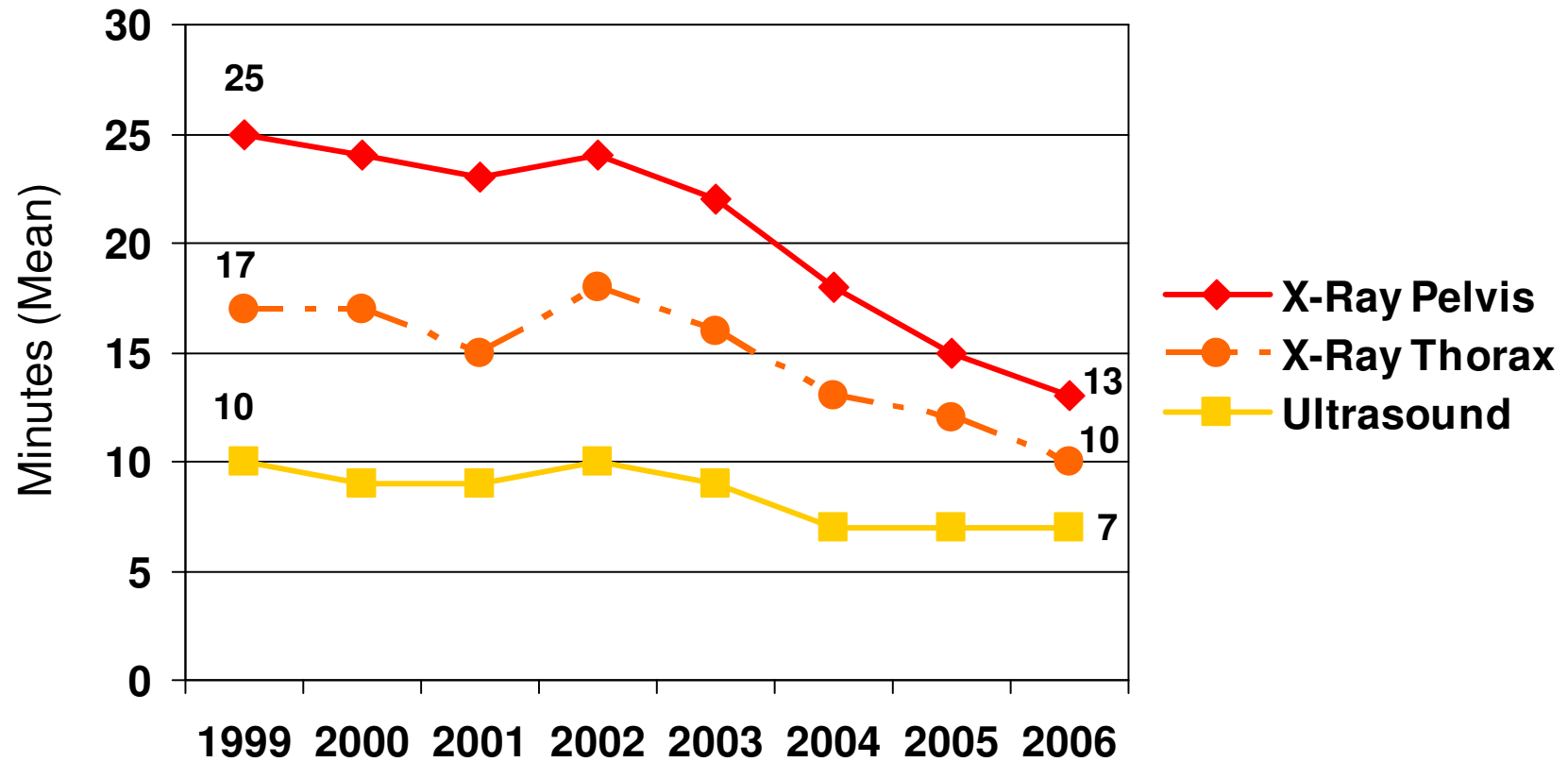


Mass Transfusion

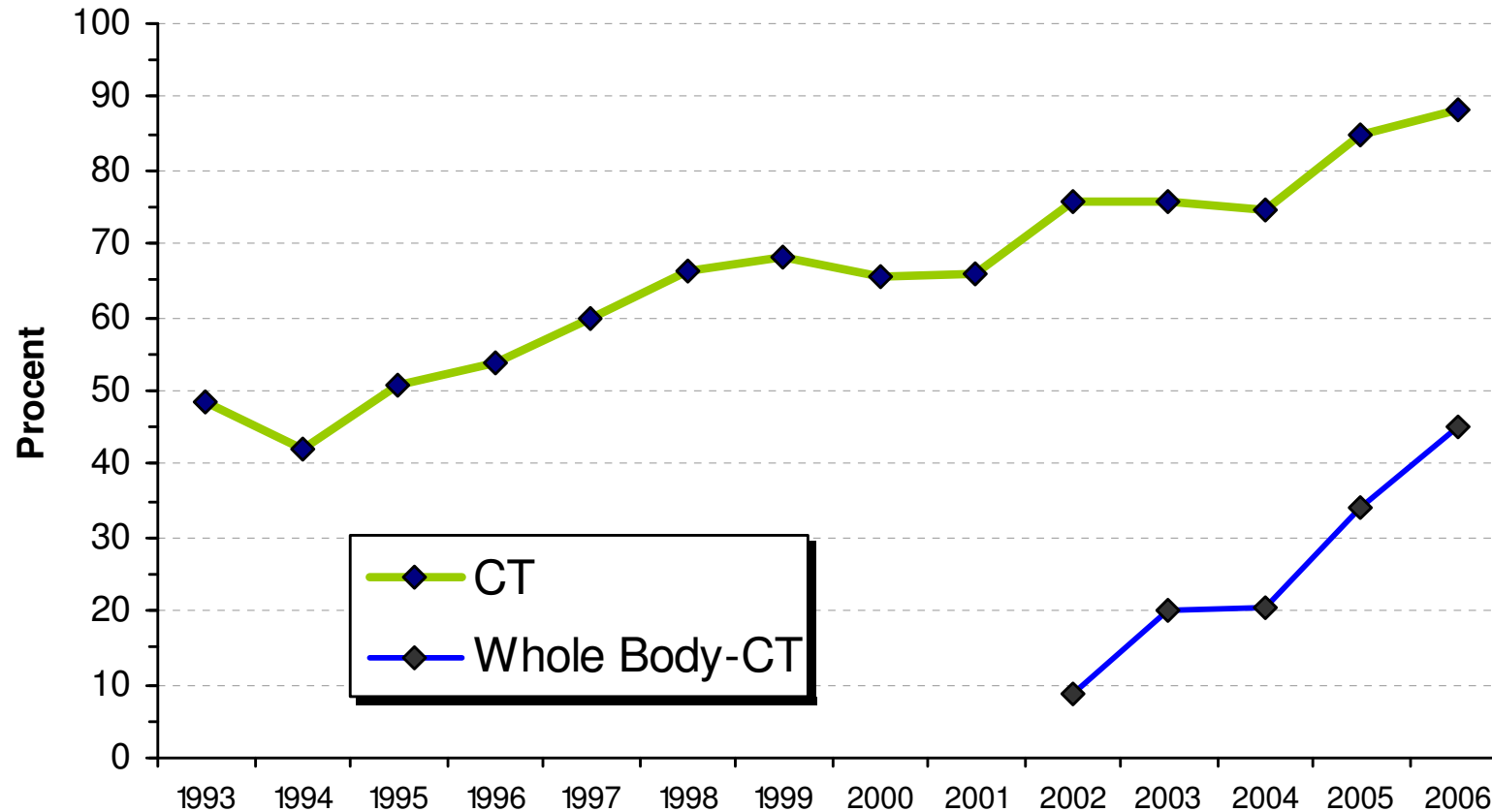
Mortality and Injury Severity Score -



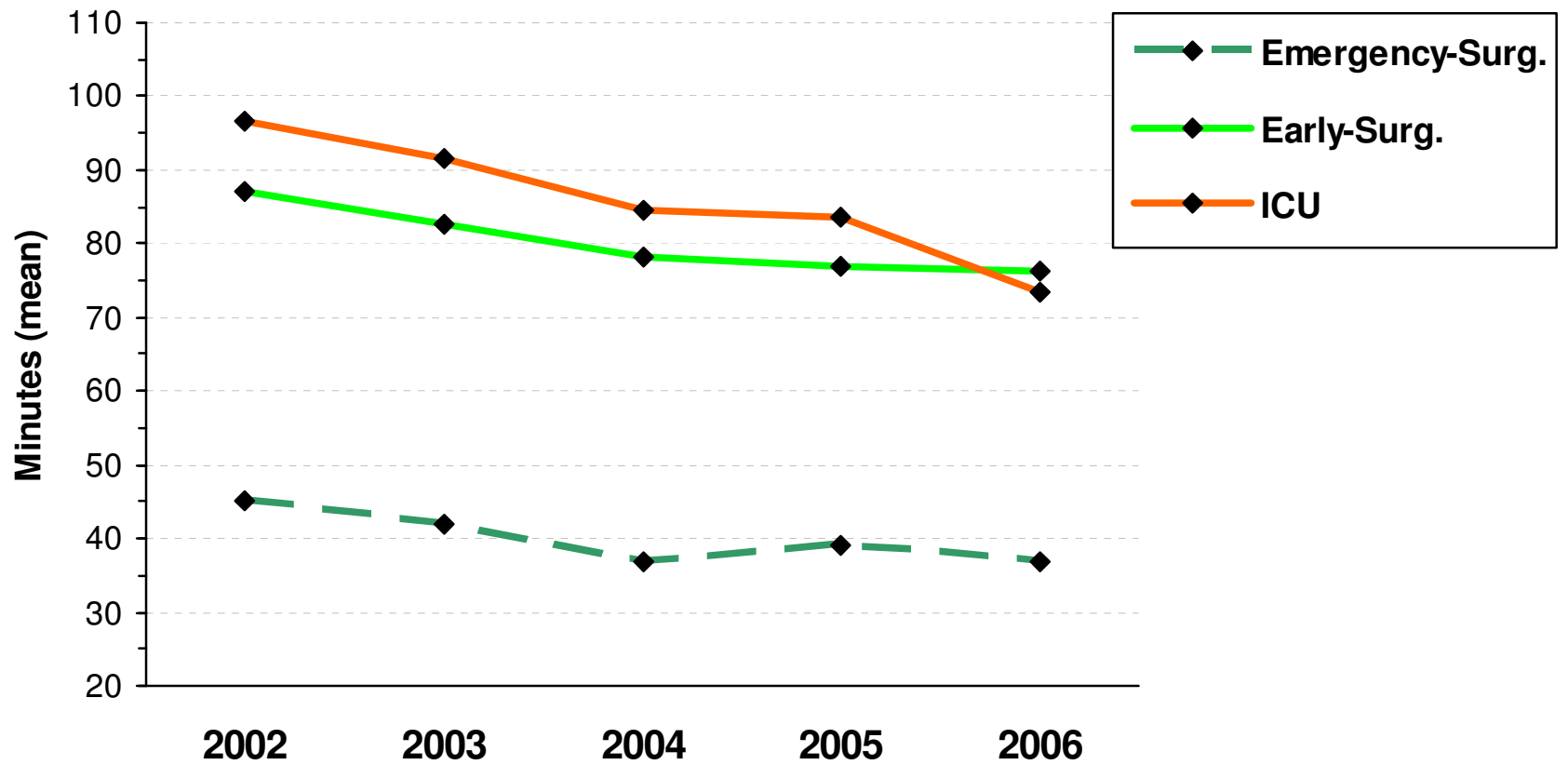
ER Diagnostics (ISS \geq 16)



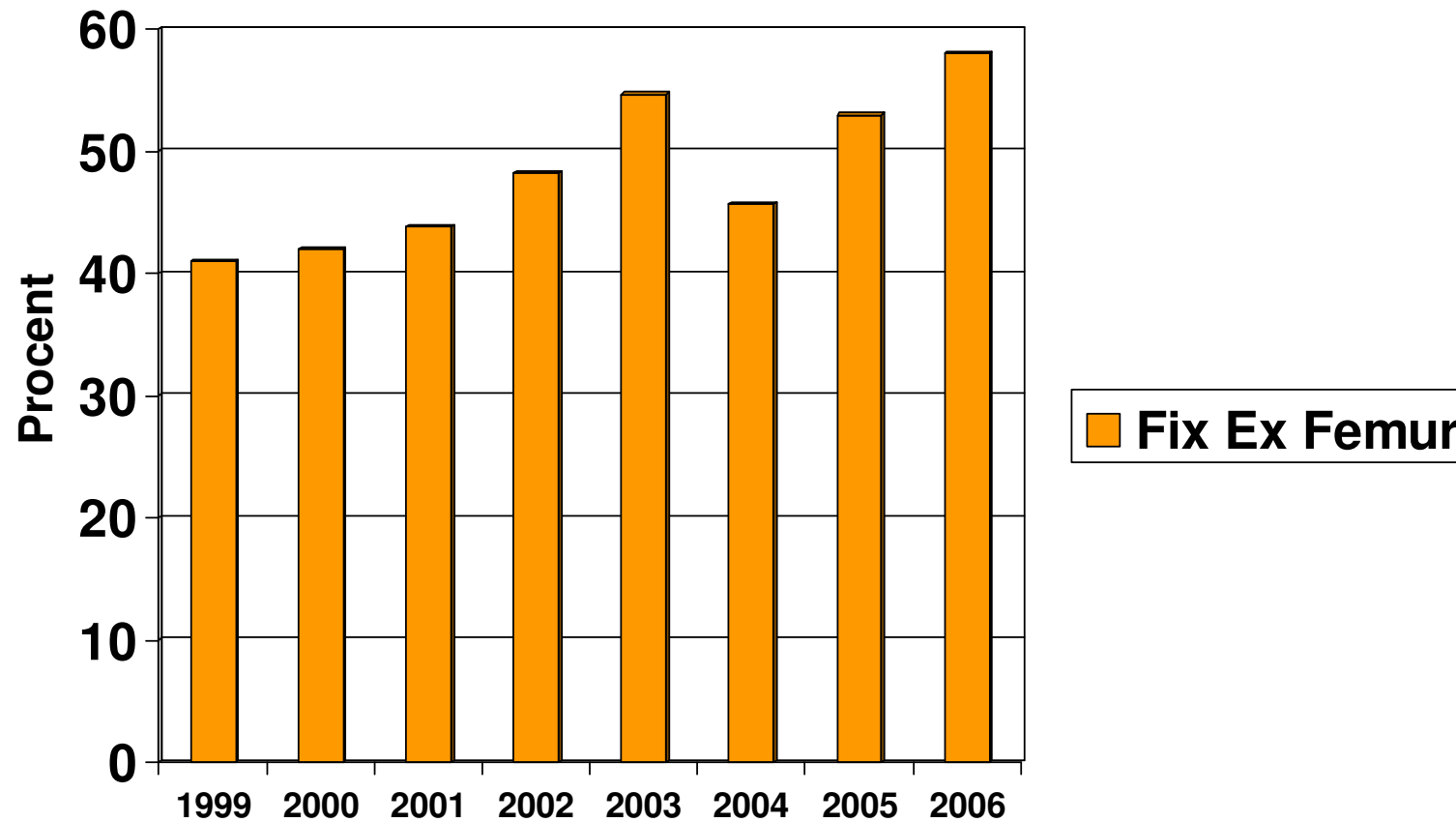
Computed Tomography



Phase B



Damage Control



RISC

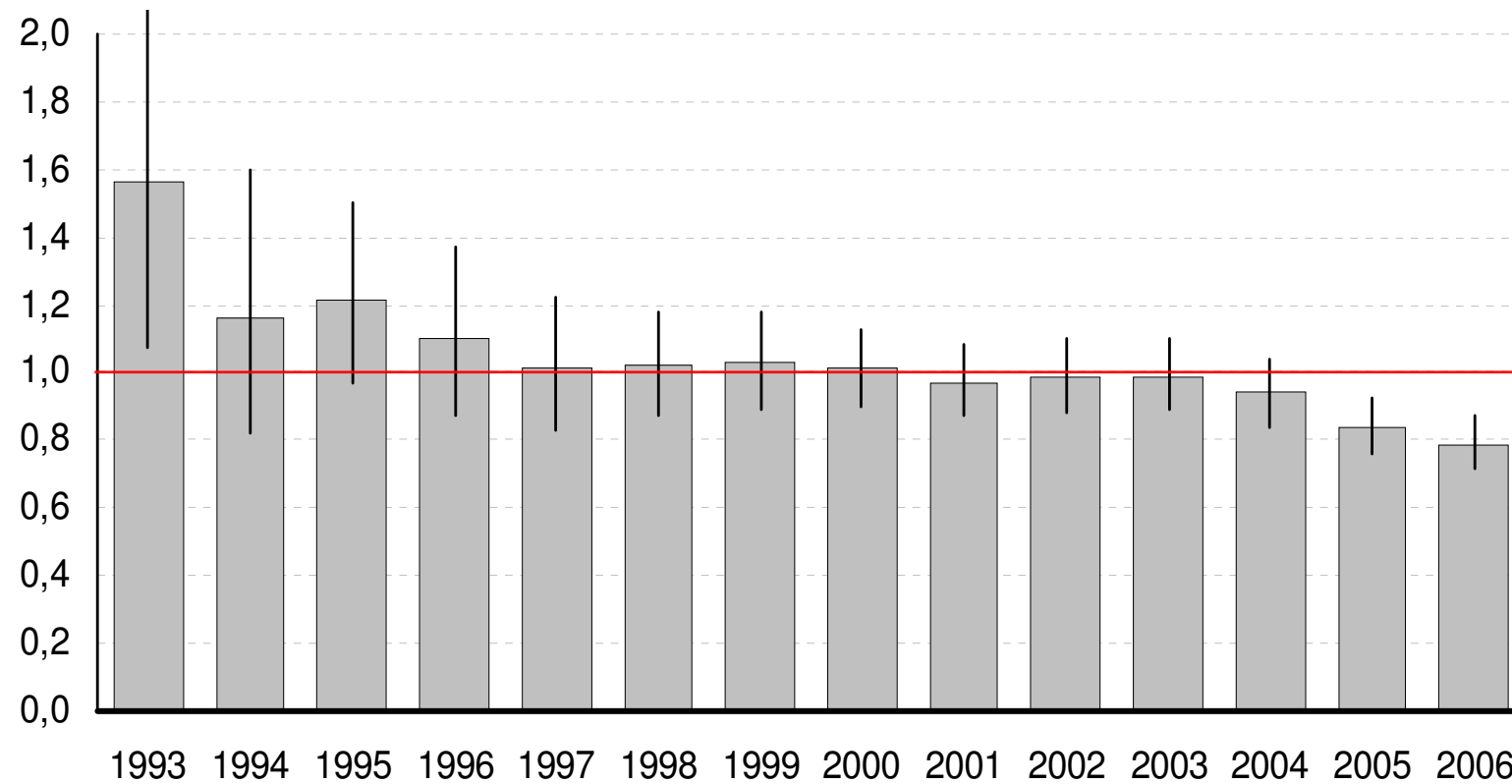
Revised Injury Severity Classification

Parameter	Value	Coeffizient
Age	55 - 64	- 1,0
	65 - 74	- 2,0
	ab 75	- 2,3
New ISS	Score	- 0,03
AIS Head	4	- 0,5
	5/6	- 1,8
AIS Extremities	5	- 1,0
GCS	3-5	- 0,9
Hemostasis (PTT)	40-49	- 0,8
	50-79	- 1,0
	ab 80	- 1,2
Base Excess	-9 bis -19,9	- 0,8
	≤ -20	- 2,7
Reanimation / RR=0	yes	- 2,5
Indir. Bleeding Signs*	1	- 0,4
	2	- 0,8
	3	- 1,6
Constant	...	5,0

* $RR_{\text{syst}} < 90 \text{ mmHg}$ / $Hb < 9 \text{ mg/dl}$ / $\text{No. EK} > 9$

Prognose

2006: SMR = **0,79** (CI 0,72 - 0,87)



Conclusion

- 19% Hemorrhagic Shock
- 26% Transfusion (Phase B)
- 8% Mass Transfusion
- (8%) Haemostasis Therapy
- 66% RPBC in the First 4 Hours