

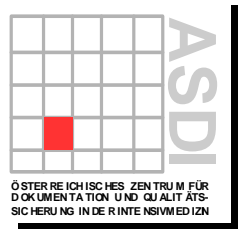
Intensivmedizin im Wandel der Zeit – die letzten 15 Jahre

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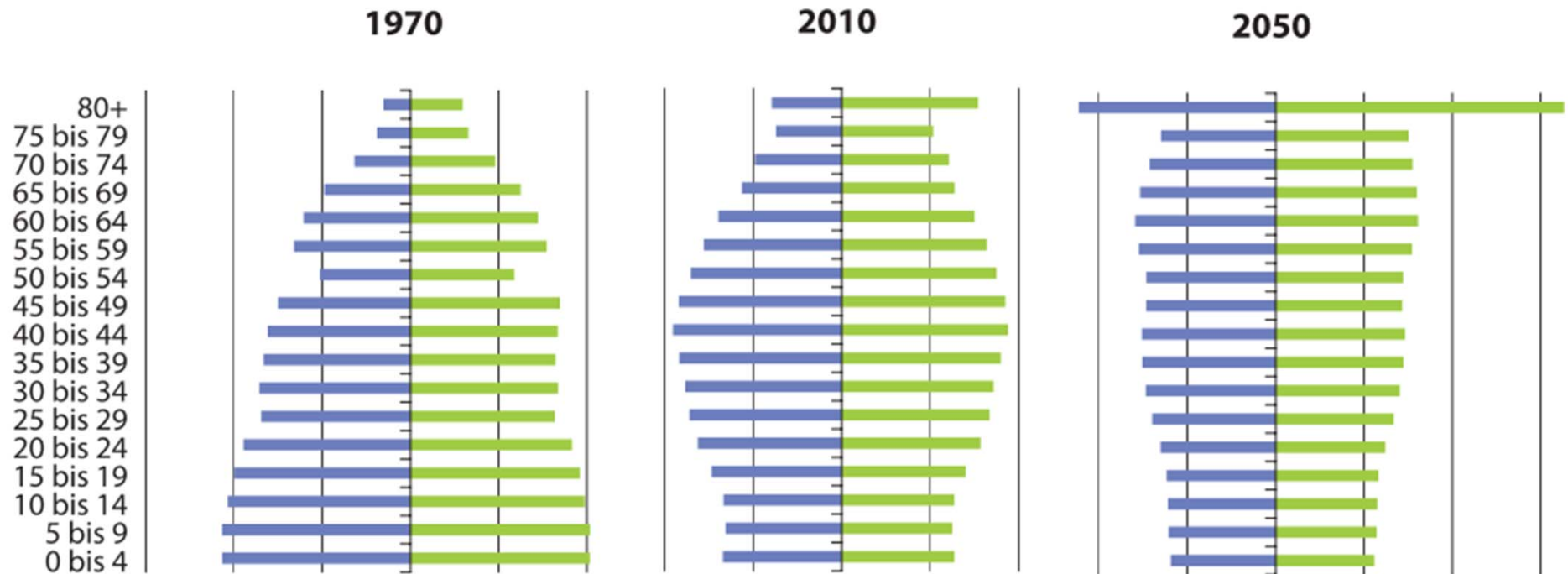
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Welche Themen gab es vor 15 Jahren nicht mit der heutigen Wertigkeit?

- **Epidemiologie**
- **End of life decisions**
- **Ethische Aspekte**
- **Patientensicherheit**
- **Qualitätssicherung**
- **Qualitätsindikatoren**
- **Ökonomische Aspekte**
- **Intensive care without walls**
- **Early goal directed therapy**
- **Mild therapeutic Hypothermia**
- **Team building & leadership**
- **Burnout**
- **Konflikte in der ICU**
-
-

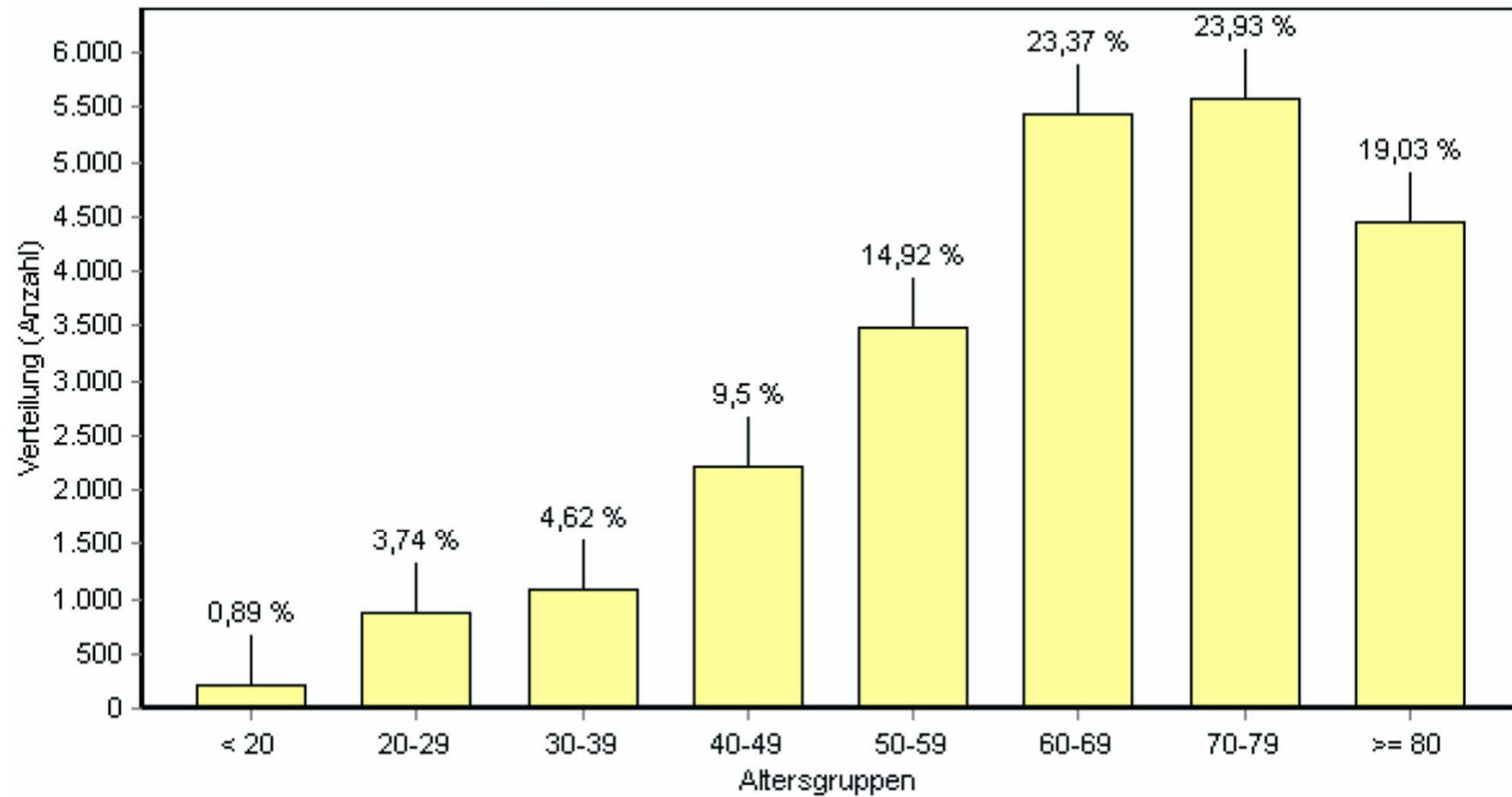
Verschiebung der Alterspyramide, EU-27



Quelle: EUROSTAT 2009

Altersverteilung im Jahr 2010

73 ICUs mit 23.311 Patienten



Paradigmenwechsel

Patienten

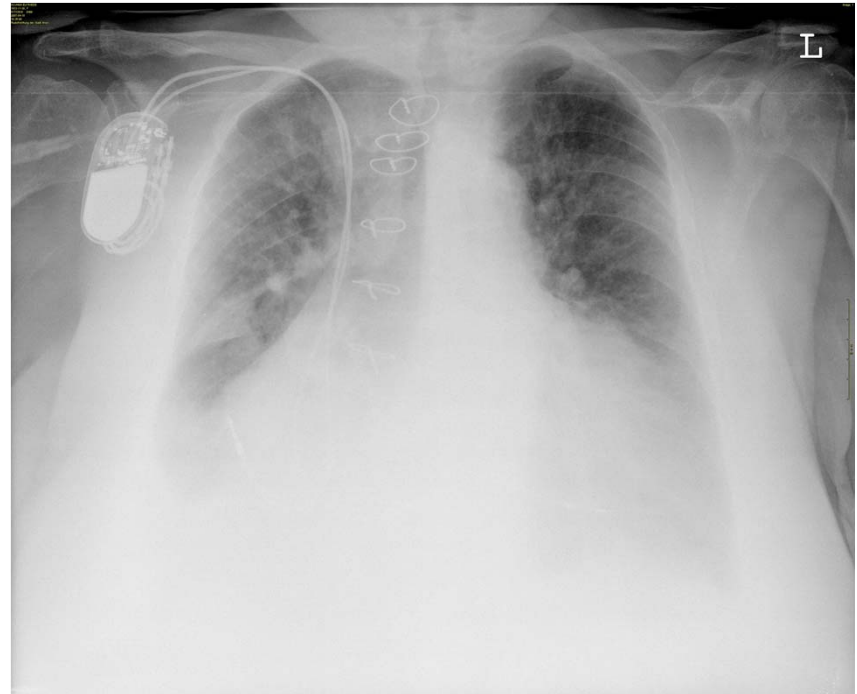
- Multimorbid
- Älter
- Komplexer
- Schwere krank
- Kausale Therapie?

Ansprüche, Erwartung

- Steigend

Ressourcen

- begrenzt



74 jähriger Pat.
st.p AKE, PM, COPD,
Hypertonie, IDDM, NI

Konsensuspapier der Intensivmedizinischen Gesellschaften Österreichs

Empfehlungen zum Thema Therapiebegrenzung und -beendigung an Intensivstationen

Interdisziplinärer österreichischer Konsensus-Arbeitskreis Therapiebegrenzung an der Intensivstation

Österr. Gesellschaft für Internistische und Allgemeine Intensivmedizin (ÖGIAIM)

Österr. Gesellschaft für Anaesthesiologie, Reanimation und Intensivmedizin (ÖGARI)

Österr. Gesellschaft für Neurointensivmedizin (ÖGNIM)

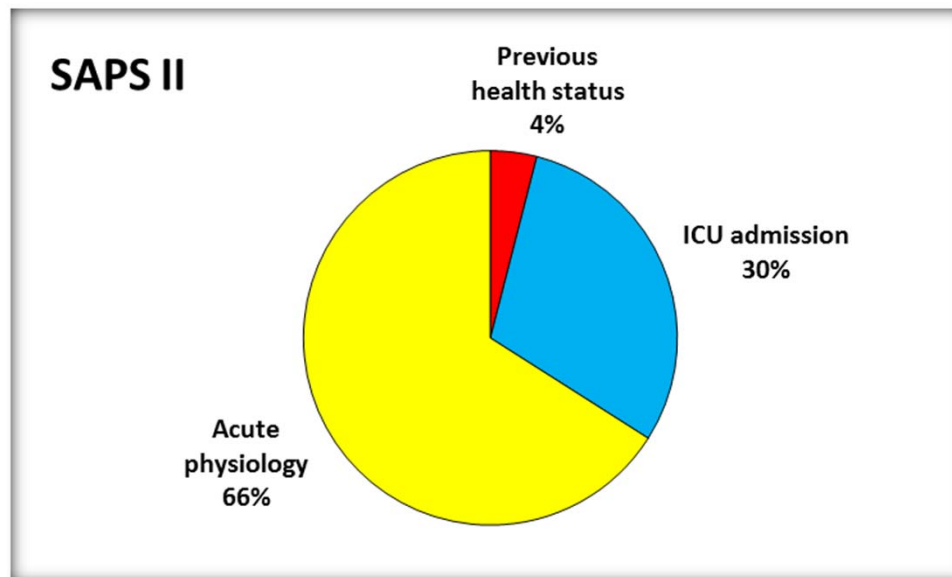
Österr. Gesellschaft für Chirurgie

Aufgabe und Ziel der Intensivmedizin:

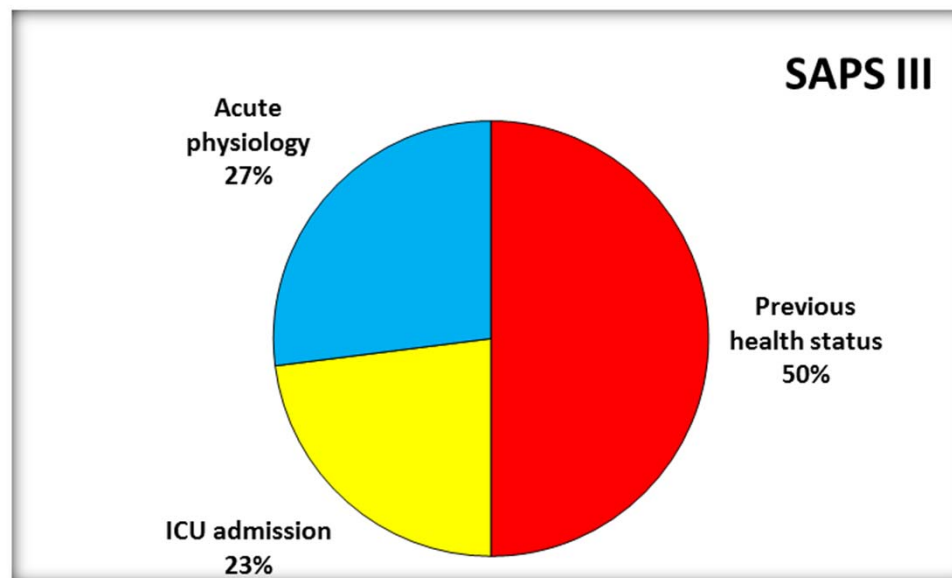
Leben zu erhalten aber nicht Sterben zu verlängern

Impact of Previous Health Status

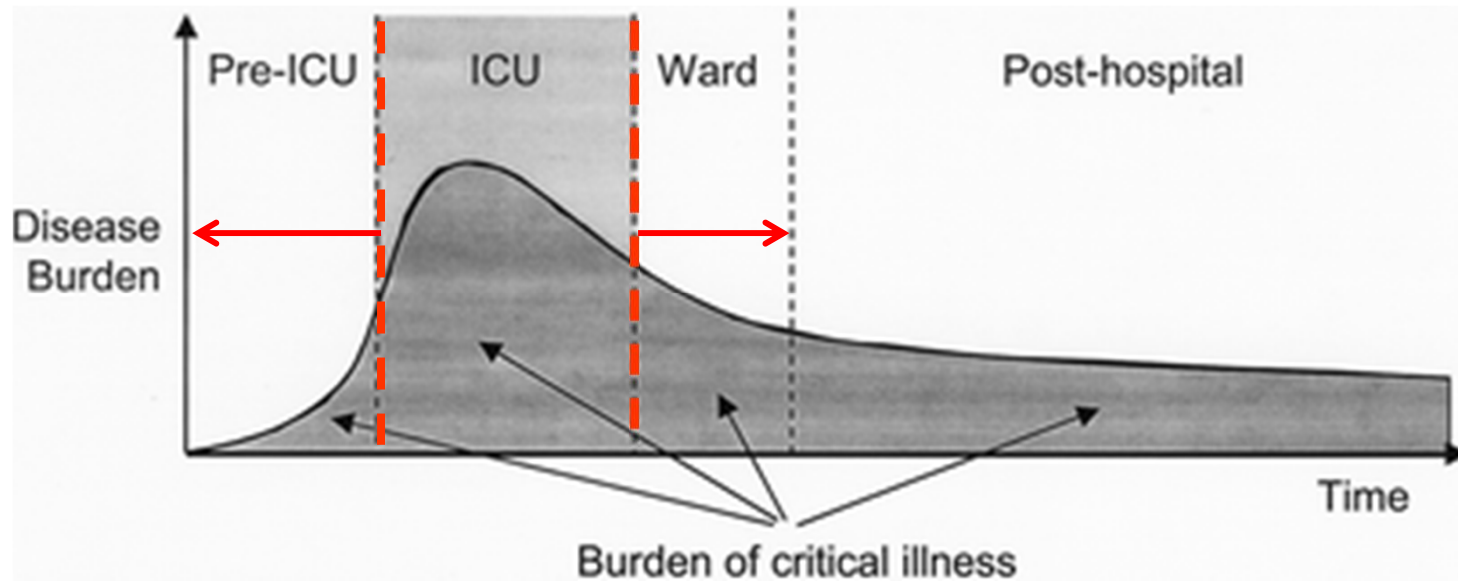
SAPS II



SAPS 3



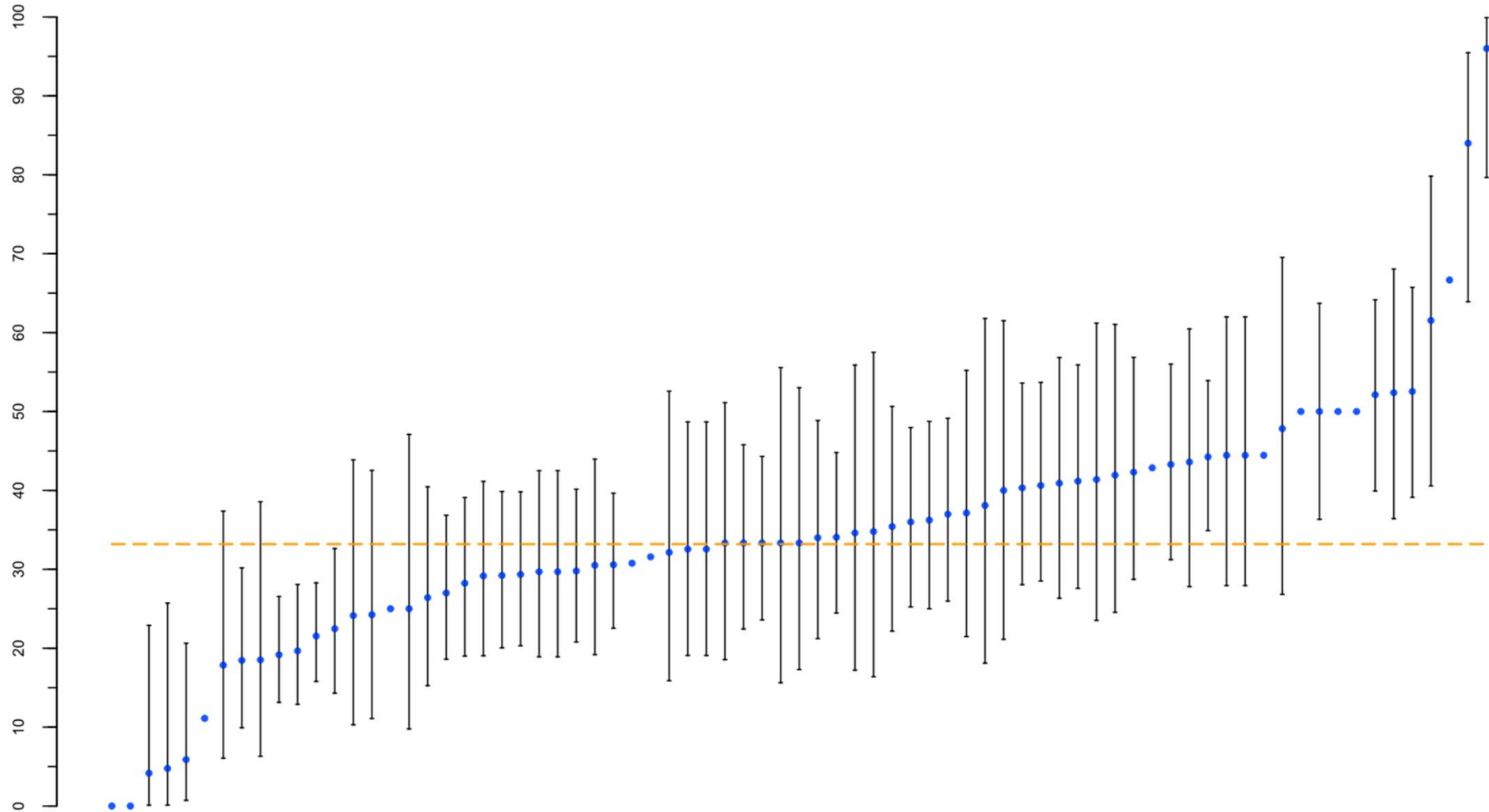
The course of critical illness



Angus DC, adapted from Cook D; Intensive Care Med (2003)

Proportional Post-ICU Mortality

Sample of 75 Austrian ICUs



Der Prozess Intensivmedizin


NFA

OP

Intensivmedizin

AST

DIA
G



Qualitätsindikatoren für Intensivstationen

Version Oktober 2008



- Anwesenheit eines Intensivmediziners
- Frühe enterale Ernährung
- Milde, Therapeutische Hypothermie nach Reanimation
- Registrierung von kritischen Ereignissen
- Verzögerte Entlassung von der IBS
- Beatmungsassoziierte Pneumonie
- Durchschnittliche Dauer der mechanischen Beatmung
- Durchschnittliche Länge des Aufenthaltes an der IBS
- Infektionsrate Zentralvenöser Katheter
- Mortalität beim schweren Schädel Hirntrauma
- Reintubationsrate
- Standardisierte Mortalitätsrate
- Ungeplante Wiederaufnahmen

A thorough, systematic examination of the processes and results of a health care service.

*External
Audit*

*Internal
Audit*

*Quality
Indicators*

*Benchmarking
External*

*Benchmarking
Internal*

Risk as probability of an unfavourable outcome

Intrinsic Risk

- Premorbidity & Age
- Current Diagnosis
- Severity of Illness



Extrinsic Risk

- Diagnostic accuracy
- Treatment decisions
- Process of care
-

Errors in administration of parenteral drugs in intensive care units: multinational prospective study

Andreas Valentin, associate professor¹, director of intensive care unit,² Maurizia Capuzzo, consultant in anaesthesia and intensive care medicine,³ Bertrand Guidet, professor,^{4,5,6} Rui Moreno, professor,⁷ Barbara Metnitz, statistician,⁸ Peter Bauer, professor and head of core unit of medical statistics and informatics,⁸ Philipp Metnitz, professor⁹ on behalf of the Research Group on Quality Improvement of the European Society of Intensive Care Medicine (ESICM) and the Sentinel Events Evaluation (SEE) Study Investigators

	Events / 100 pt days	lower 95% CI	upper 95% CI
All	74.5	69.5	79.4
Wrong time	33.4	30.1	36.7
Missed medication	22.4	19.7	25.1
Wrong dose	10.2	8.4	12.0
Wrong drug	5.3	4.0	6.6
Wrong route	3.2	2.2	4.2

SIFIM study
59 ICUs in Austria, Germany, Switzerland

Predictors of error

Valentin et al, Int Care Med, in press

	OR	95% CI	p
Patient level			
Nr of tubes, drains, lines	1.02	1.01 – 1.03	0.01
NEMS score	1.03	1.02 – 1.05	<0.01
ICU level			
Safety climate total score	0.98	0.97 – 0.99	<0.01

**Open discussion & communication
of problems**





Gertrud Stein

A rose is a rose is a rose is a rose

**An intensivist is not an intensivist
is not an intensivist is not an intensivist**

- ***Personal Level of***
 - Education / Training
 - Experience
 - Competence
- ***Organisational level of***
 - Coverage
 - Availability
 - Responsibilities
 - Decision making authority

Statement

Be decisive when action is needed

Up-to-date knowledge about illness and treatment

Handle crisis calmly

Carry out particular procedures skilfully

Do everything possible to control pain

Explain in ways patients can understand

Treat patients as individuals

Work well as member of a team

Give bad news in a caring way

Do not talk as if patients were not there

Listen to patients

The views of patients and relatives of what makes a good intensivist

Discuss future care

Be polite

Discuss fears and anxieties with patients

Give pts & relatives an opportunity to ask questions

Involve pts & relatives in decisions

Give patients full information even when this is upsetting

Find out what relatives think and feel

Do not give information that is upsetting

Int Care Med (2007)
33:1913-1920

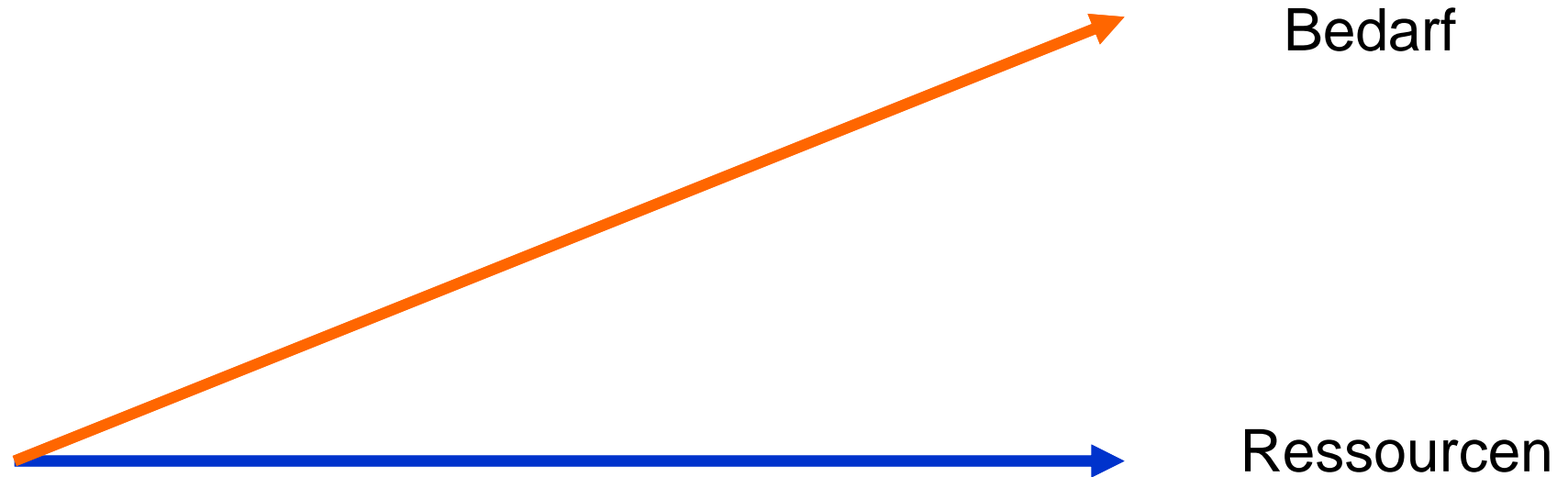


BURNOUT in ICUs

- Physicians 46% (Embriaco et al., 2007)
- Nurses 33% (Poncet et al., 2007)
- Nurses (high level of burnout) 28% (Verdon et al, 2007)



Innerklin. Notfallmedizin & Intensivmedizin Steigender Bedarf – limitierte Ressourcen

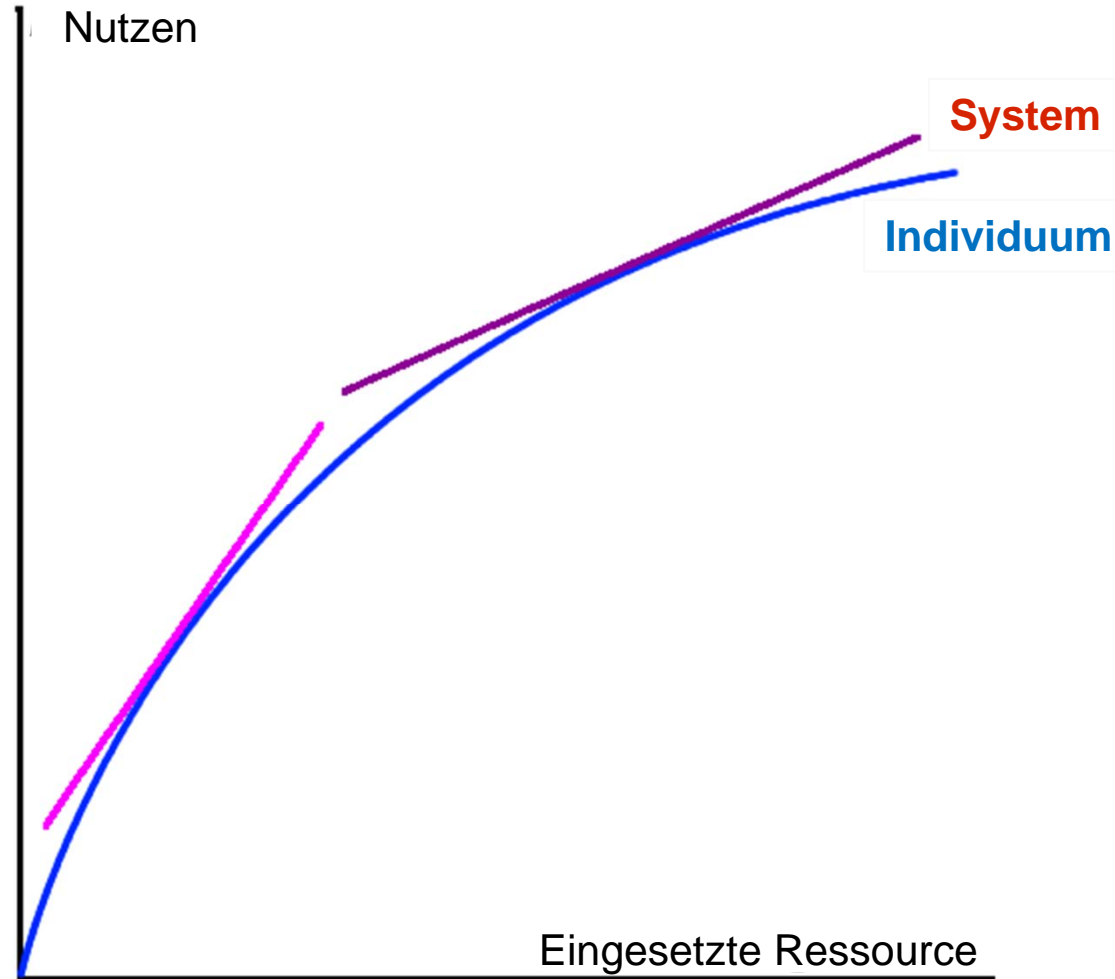


Finland – Prognose Intensivbettenbedarf
25% Anstieg bis 2030
(Reinikainen, *Acta Anaesthesiol Scand* 2007)

Costs per life-year saved

Intervention	Cost per life-year saved (\$)
Screening for breast cancer	12,235
Statins for primary prevention in pts with a 10 year risk of CHD of 20%	21,570
Mechanical ventilation for stroke	37,600
Screening for cervical cancer	51,450
ICD	235,000
ICU admission	7,065

Nutzenfunktion



Adaptiert nach Klugbeisser, Deutsche Wikipedia

Analyse-Ebenen



Der kritisch kranke Patient

Intensivmed. Kompetenz

NFA

ICU

IMC

MET