

Journal Meeting

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Mental and physical disorders after ICU discharge

Current Opinion in Critical Care 2010,
16:510–515

Hans Flaatten

INTRODUCTION

- The last decade → more focus on long term outcome

Long-term survival

- long-term:
3m to 12 y
- 4th phase
(18 m to 3 y)
mortality is equal to normal
- Subgroups may behave differently

Figure 1 The four phases of mortality related to intensive care

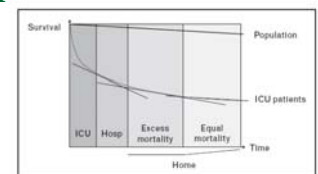
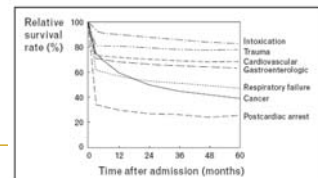
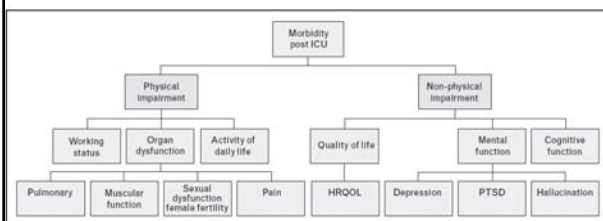


Figure 2 Different ICU survival curves in ICU patients



Long-term non mortality outcomes

- physical and mental outcomes



Health-related quality of life after ICU discharge

- HRQOL after ICU discharge probably never will equal normal
- Another cohort was followed from pre-ICU until 5 years later.
- quality of life ↓
 - ↑ to pre-morbid levels at 12 m.
 - ↓ from 2.5 to 5 years
- 1663 p'ts f/u 6, 12, 24, 36m post-ICU.
- The most significant factor to explain HRQOL ↓
- pre-existing diseases

Health-related quality of life after ICU discharge

- Severe trauma probably permanent ↓ QOL

Table 1 Long-term outcomes after severe trauma

Author	Year	Points	Mortality	ISS	Method	Follow-up	QOL
Frutiger [8]	1991	167	18.4%	29.3	GOS	5 years	
Thaagarajan [9]	1994	64	NA		NHP	NA	
Vazquez Mata [10]	1996	351	24.7%	23.6	Local	1 and 2 years	
Miller [11]	2000	90	22%	29	FIM	3 months	
Evans [12,13]	2003	109	NA	22.7	OPCS	5 years	
Dinopoulos [13]	2004	87	NA	22	NHP	1 year	
Ufuk [14]	2008	210	17.8%	25	EQol 5D	2-7 years	

- Elderly
30 ~50% survive 12 m
live independently at home although high 1-year mortality (69%).

Functional and working status

- Low (23~35%)
be able to work V.S. being employed
- Early exercise (still on ventilator) may ↑ independent functional
- A walking test (the 6-min walk test)
motor, pulmonary, circulatory

Organ function

lack of standardized methods

Pulmonary function

Most in ARDS p'ts
extracorporeal membrane oxygenation (ECMO)
related to fibrosis

Renal function

HRQOL ↑ 28d ~ 6m but was still reduced

Neuromuscular function

critical illness neuropathy and myopathy
(CIP and CIM) up to 50%

Detecting CIP and CIM as early as 4 days after admission is possible → early physical and occupational therapy

Mental function

Insomnia, severe depression, post-traumatic stress disorders.

Recent advances regarding anxiety & depression & cognitive dysfunction & ICU delirium

Anxiety and depression

	Risk factors
Depression	alcohol dependence, female gender & age (young more than elderly)
Anxiety	PO2 ratio and length of mechanical ventilation
Later anxiety and depression.	presence of anxiety and depression at year 1

- Another review neither sex, age nor severity of the disease were found to be risk factors.
→ early symptoms of depression is strong predictor for subsequent depression.

Cognitive dysfunction

- Unconsciousness to minor, often called 'hidden' dysfunction
- Common in the 1st short period after ICU and most tends to normalize after the 1st year
- Even affect HRQOF after a long time
24% still had cognitive impairment
41% Disability
All patients with cognitive impairment were disabled

Delirium

- Common in ICU p'ts
- 11~80%
- Long-term effects remain uncertain
- Increased mortality

Conclusion

- No single measure of such morbidity is available neither for physical nor for mental outcome
- We still need more data on specific outcome parameters for prevention

Thank you for your attention!!

