19.09.16

Immobilisation?
Das ABCDE-Bündel !



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Universitätsklinik für Anästhesiologie | Intensivmedizin
Notfallmedizin | Schmerztherapie
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Aufwachversuch

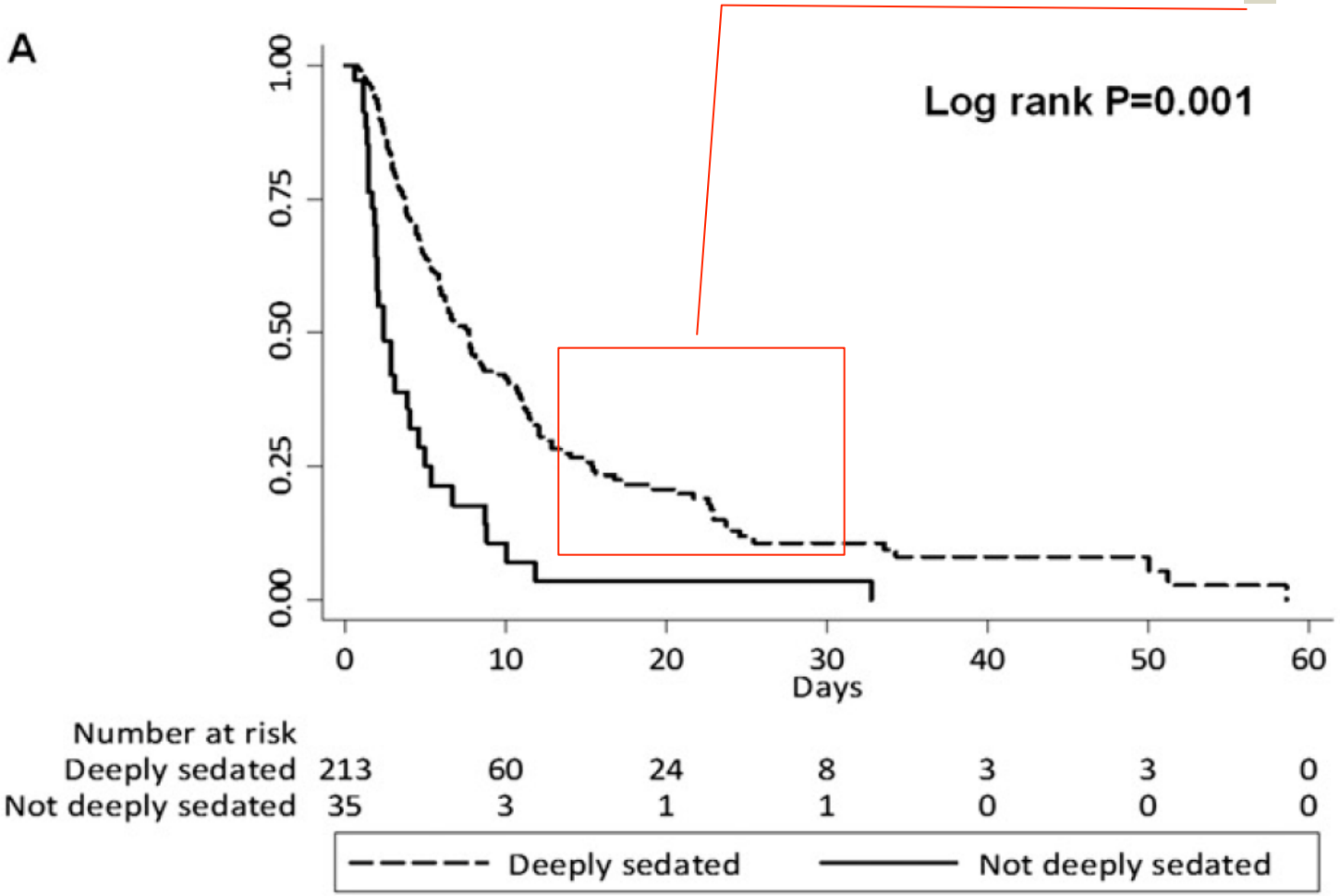


Breathe
Spontanatmungsversuch

Time to extubation is longer in deeply sedated patients

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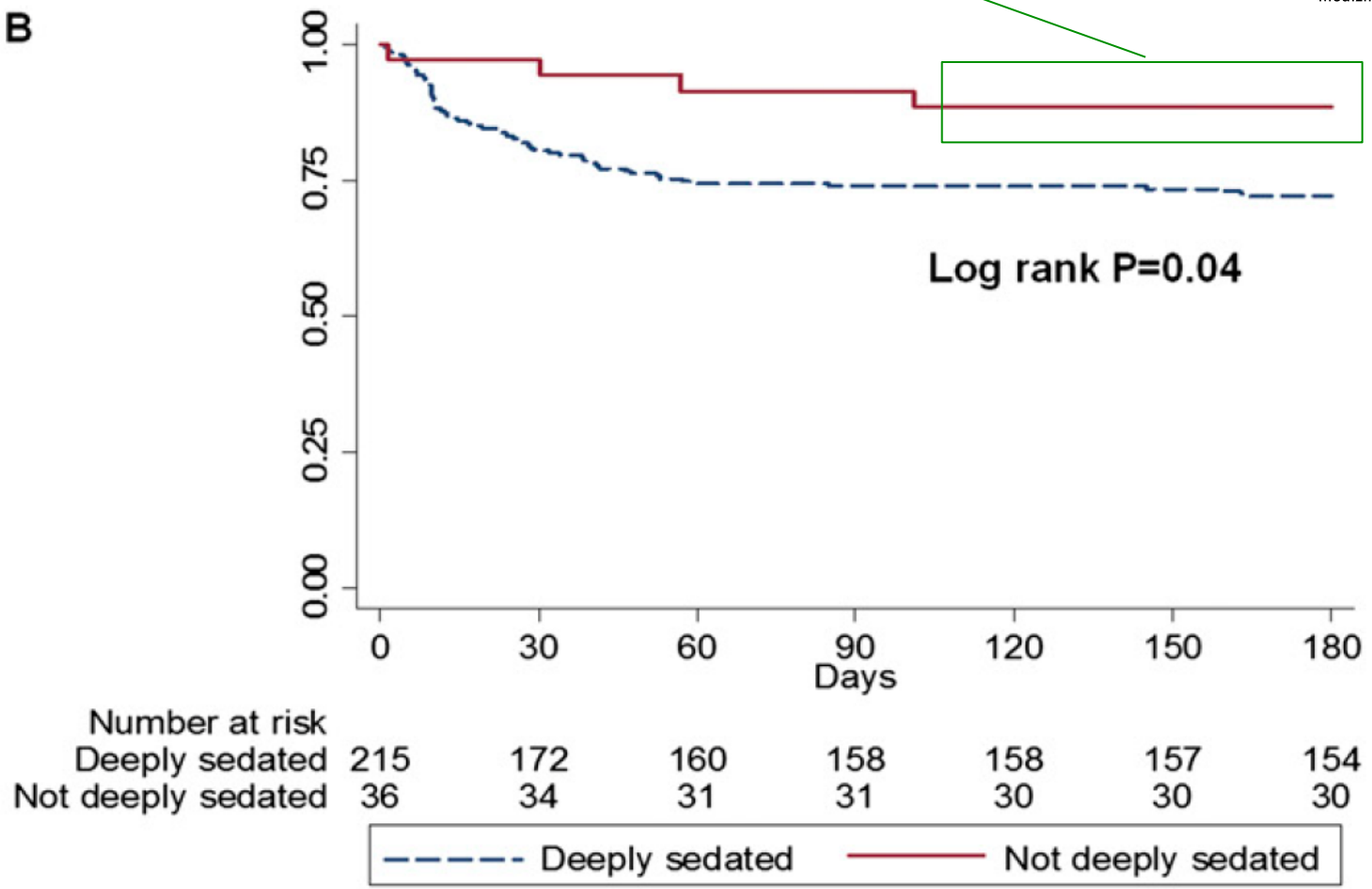
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Shehabi et al. AJRCCM 2012

Survival is higher in patients who are not deeply sedated

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Shehabi et al. AJRCCM 2012

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Choice of sedatives

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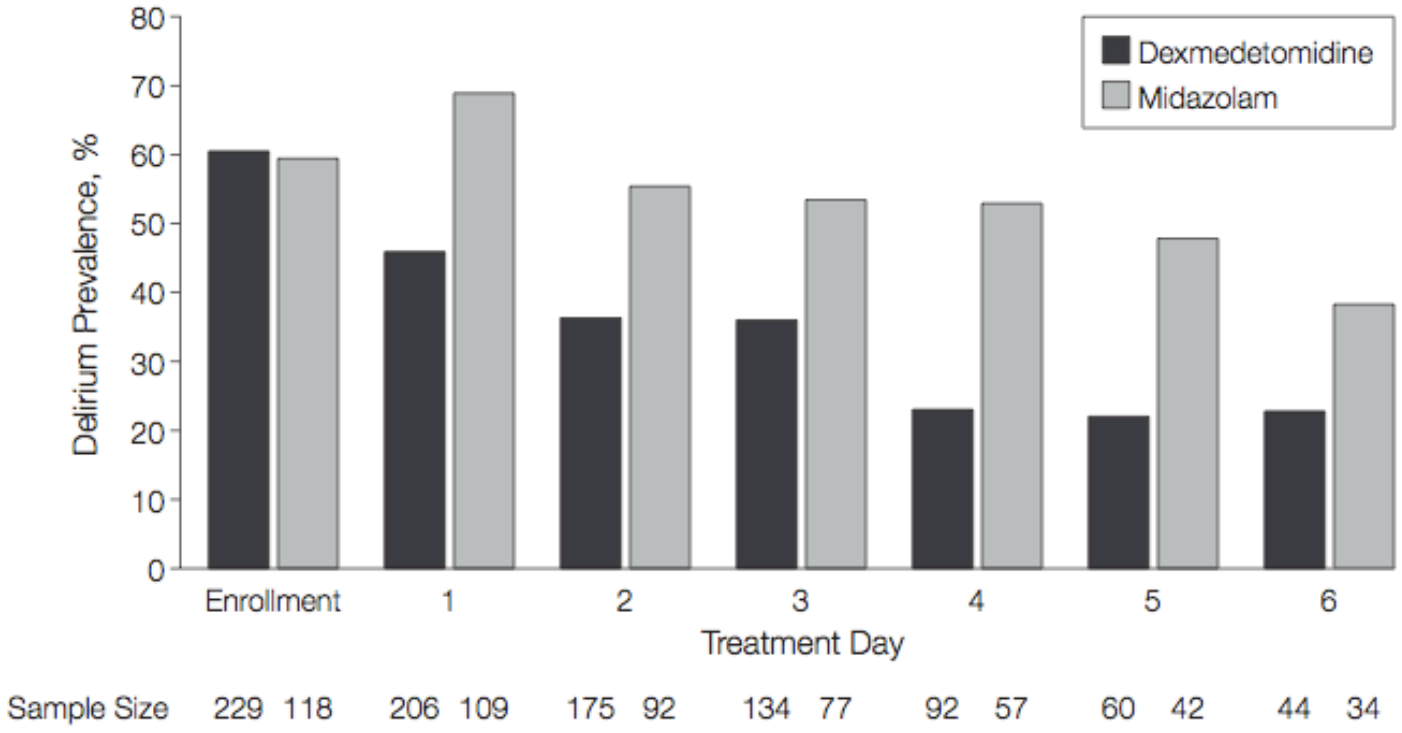
Online article and related content current as of October 29, 2009.

Dexmedetomidine vs Midazolam for Sedation of Critically Ill Patients: A Randomized Trial

Richard R. Riker; Yahya Shehabi; Paula M. Bokesch; et al.

JAMA. 2009;301(5):489-499 (doi:10.1001/jama.2009.56)

Figure 2. Daily Prevalence of Delirium Among Intubated Intensive Care Unit Patients Treated With Dexmedetomidine vs Midazolam



In dieser Studie gleiche Sedierungstiefe
Midazolam ERHÖHT die Delir-Inzidenz !!

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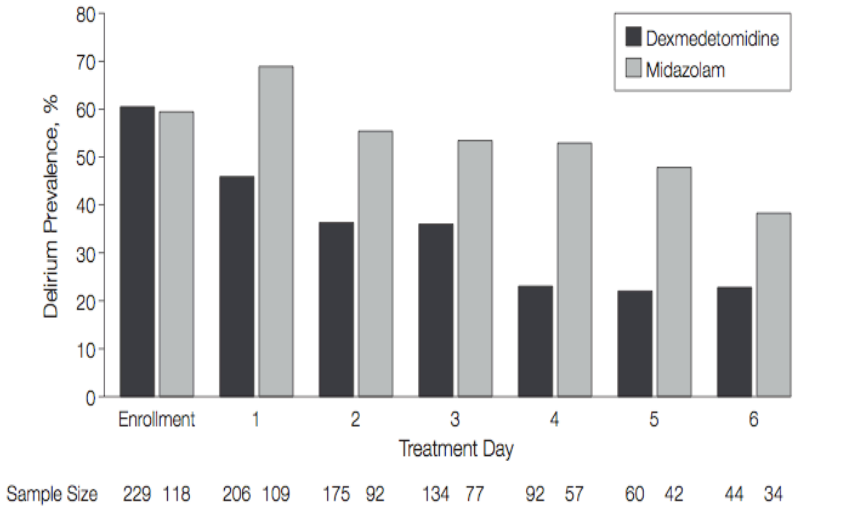
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Figure 2. Daily Prevalence of Delirium Among Intubated Intensive Care Unit Patients Treated With Dexmedetomidine vs Midazolam



	DEXMEDETOMIDINE	MIDAZOLAM	*P*
Beatmungszeit	3.7 Tage	5.6 Tage	0.01
Dauer Medikament-Gabe	3.5 Tage	4.1 Tage	0.01
ICU Aufenthalt	5.9 Tage	7.6 Tage	0.24
Infektionen	10.2 %	19.7 %	0.02

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Monitoring
Treatment

Implementation of a delirium assessment tool in the ICU can influence haloperidol use

Mark van den Boogaard[1], Peter Pickkers[1], Hans van der Hoeven[1], Gabriel Roodbol[2], Theo van Achterberg[3] and Lisette Schoonhoven[3]

Crit Care. 2009 Aug 10;13(4):R131

The purpose of this study was to evaluate the implementation of the confusion assessment method-ICU (CAM-ICU) and the effect of its use on frequency and duration of haloperidol use.

METHODS: We used a tailored implementation strategy focused on potential barriers. We measured CAM-ICU compliance, interrater reliability, and delirium knowledge, and compared the haloperidol use, as a proxy for delirium incidence, before and after the implementation of the CAM-ICU.

RESULTS: Compliance and delirium knowledge increased from 77% to 92% and from 6.2 to 7.4, respectively (both, $P < 0.0001$). The interrater reliability increased from 0.78 to 0.89. More patients were treated with haloperidol (9.9% to 14.8%, $P < 0.001$), however with a lower dose (18 to 6 mg, $P = 0.01$) and for a shorter time period (5 [IQR:2-9] to 3 [IQR:1-5] days, $P = 0.02$).

Effect of the implementation of the CAM-ICU in 2008 on delirium treatment

	2006 (n = 512)	2007 (n = 589)	2008 (n = 641)	*P* value
Total numbers of delirious patients (%)	51 (10%)	79 (13%)	147 (23%)	< 0.0001
Number of delirious patients per month	13	20	37	< 0.0001
Total dose of haloperidol per patient (mg) n = total number of patients treated with haloperidol	18 (5 to 40) (n = 52)	12.5 (3 to 30) (n = 80)	6 (2 to 20) (n = 147)	0.01
Duration of treatment (days)	5 (2 to 9)	3 (2 to 9)	3 (1 to 5)	0.02

All values are medians (interquartile range) unless other reported. CAM-ICU = confusion assessment method-intensive care unit.

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Einführen eines Delir-Tests (CAM-ICU) reduzierte den „Haldol-pro-Patient“ Verbrauch

WICHTIG: Das Delir-Monitoring ist schon Teil der Therapie !

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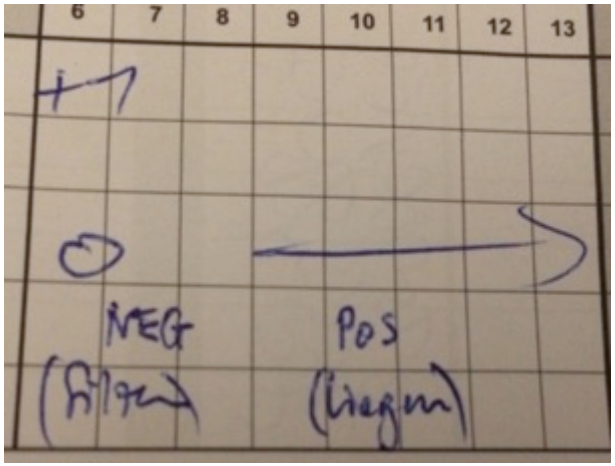
Delirium
Monitoring
Treatment

Early
mobility & exercise

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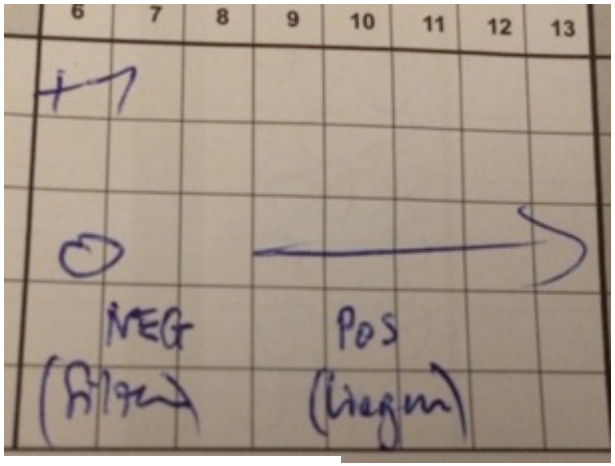




Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial

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Ergebnisse von 104 Patienten

	Frühmobilisierung	Standard	
Funktionell selbstständig bei KH-Entlassung	**59%**	**35%**	p=0.02
Dauer des Delirs [Median, IQR]	**2 Tage**	**4 Tage**	p=0.05
Tage ohne Beatmung [28d; median, IQR]	23.5 Tage, 7.4-25.6	21.1 Tage, 0.0-23.8	p=0.05

- 1 SAE bei 498 Therapien (Sae <80%)
- Abbruch der Therapie wg. Instabilität 19x (4%) zumeist wg. Ventilator-Asynchronizität

Schweickert WD et al. (2009) May 30;373(9678):1874-82

Frühe Mobilisierung und Ergotherapie senkt Delir-Dauer und erhöht Selbstständigkeit

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Schweickert WD et al. (2009) THE LANCET



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Zusammenfassung

1. Sedierung reduzieren erhöht die Überlebenswahrscheinlichkeit
2. Spontanatmung am Ventilator reduziert Sedativabedarf
3. Frühmobilisation reduziert die Länge des Delirs
4. Frühmobilsation fördert die Selbstständigkeit für die Zeit nach dem Krankenhaus

