

Limitations thérapeutiques à la phase subaigüe/chronique : Sur quelles bases s'appuyer?

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SPECIAL ARTICLE

MEDICAL ASPECTS OF THE PERSISTENT VEGETATIVE STATE

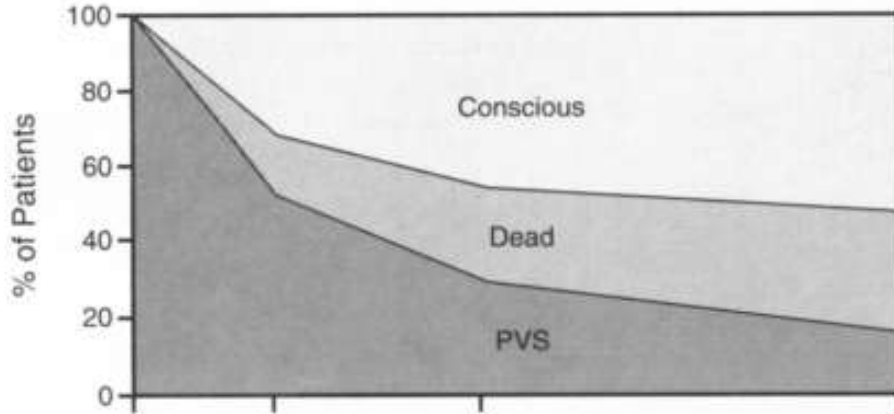
(Second of Two Parts)

THE MULTI-SOCIETY TASK FORCE ON PVS*

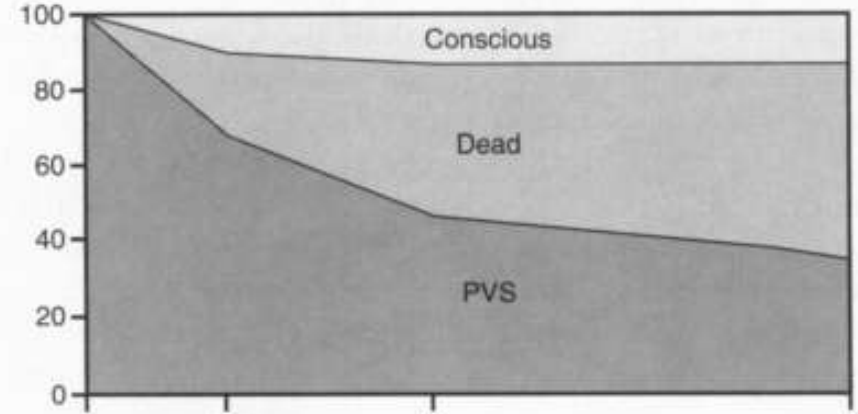
Le retour à la conscience est dépendant de l'étiologie:

Adults

Traumatic Injury (N = 434)

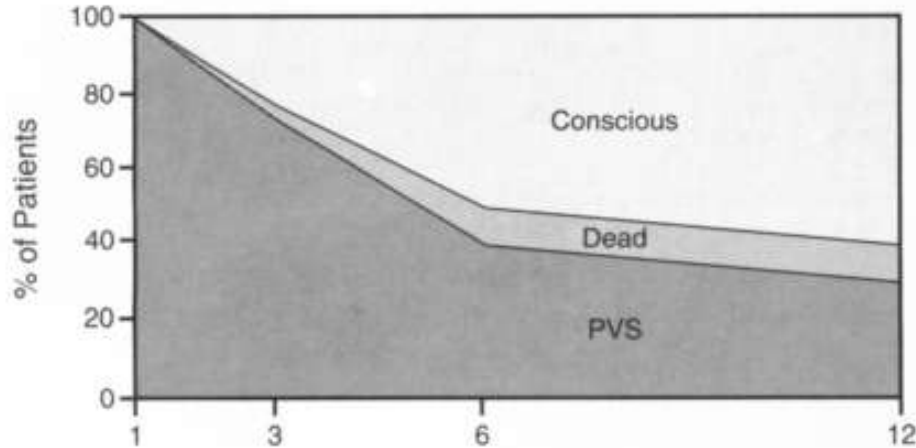


Nontraumatic Injury (N = 169)

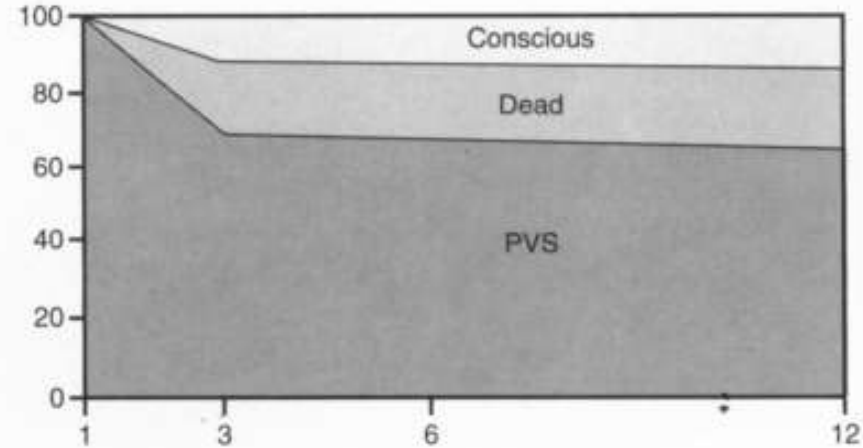


Children

Traumatic Injury (N = 106)



Nontraumatic Injury (N = 45)



Months after Injury

Months after Injury

7/434: >1 an, 5/7 avaient moins de 30 ans

Le pronostic fonctionnel est dépendant de l'étiologie:

OUTCOME AND FUNCTIONAL RECOVERY†	3 MONTHS	6 MONTHS	12 MONTHS
Adults			
<i>% of patients</i>			
Traumatic injury (n = 434)			
Death	15	24	33
PVS	52	30	15
Recovery of consciousness	33	46	52
Severe disability			28
Moderate disability			17
Good recovery			7
Nontraumatic injury (n = 169)			
Death	24	40	53
PVS	65	45	32
Recovery of consciousness	11	15	15
Severe disability			11
Moderate disability			3
Good recovery			1
Children			
Traumatic injury (n = 106)			
Death	4	9	9
PVS	72	40	29
Recovery of consciousness	24	51	62
Severe disability			35
Moderate disability			16
Good recovery			11
Nontraumatic injury (n = 45)			
Death	20	22	22
PVS	69	67	65
Recovery of consciousness	11	11	13
Severe disability			7
Moderate disability			0
Good recovery			6

>50% 3 1ers mois
 et ≈100% 6 1ers
 mois.
 ←
 <0,5% entre 6 et
 12 mois
 0 % après 12
 mois.

Facteur pronostique important: âge: < ou > 40 ans

Le pronostic de récupération de la conscience et le pronostic fonctionnel sont d'autant plus péjoratifs que l'état végétatif perdure:

OUTCOME	ADULTS		CHILDREN	
	TRAUMATIC INJURY (N = 434)	NONTRAUMATIC INJURY (N = 169)	TRAUMATIC INJURY (N = 106)	NONTRAUMATIC INJURY (N = 45)
<i>% of patients (99% confidence interval)</i>				
Patients in PVS for 3 months†				
Death	35 (27–43)	46 (31–61)	14 (1–27)	3 (0–11)
PVS	30 (22–38)	47 (32–62)	30 (13–47)	94 (83–100)
Severe disability	19 (12–26)	6 (0–13)	24 (8–40)	3 (0–11)
Moderate disability or good recovery	16 (10–22)	1 (0–4)	32 (15–49)	0
Patients in PVS for 6 months‡				
Death	32 (21–43)	28 (12–44)	14 (0–31)	0
PVS	52 (40–64)	72 (56–88)	54 (30–78)	97 (89–100)
Severe disability	12 (4–20)	0	21 (1–41)	3 (0–11)
Moderate disability or good recovery	4 (0–9)	0	11 (0–26)	0

La récupération tardive est improbable et synonyme de lourd handicap:

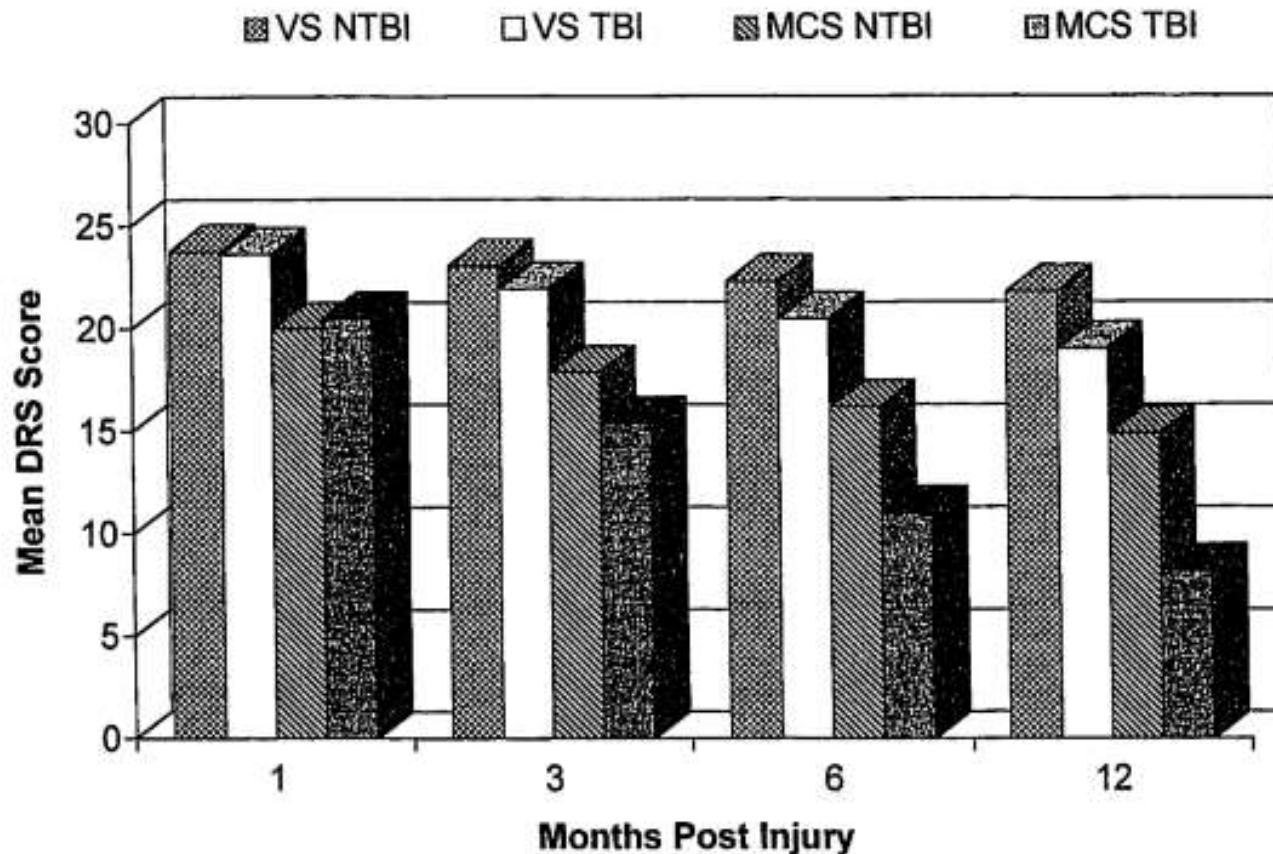
REPORT	AGE (YR)/SEX OF PATIENT	CAUSE OF PVS	DURATION OF PVS (MO)	OUTCOME
Arts et al. ¹¹¹	18/F	Trauma	30	Severe disability
Rosenberg et al. ¹¹⁵	43/M	Anoxia	17	Severe disability
Higashi et al. ⁴²	61/F	Subarachnoid hemorrhage	36	Moderate disability
	26/M	Anoxia	8	Moderate disability
Snyder et al. ¹¹⁶	36/M	Anoxia	22	Severe disability

Les patients en état de conscience minimale ont un meilleur pronostic fonctionnel que les patients végétatifs:

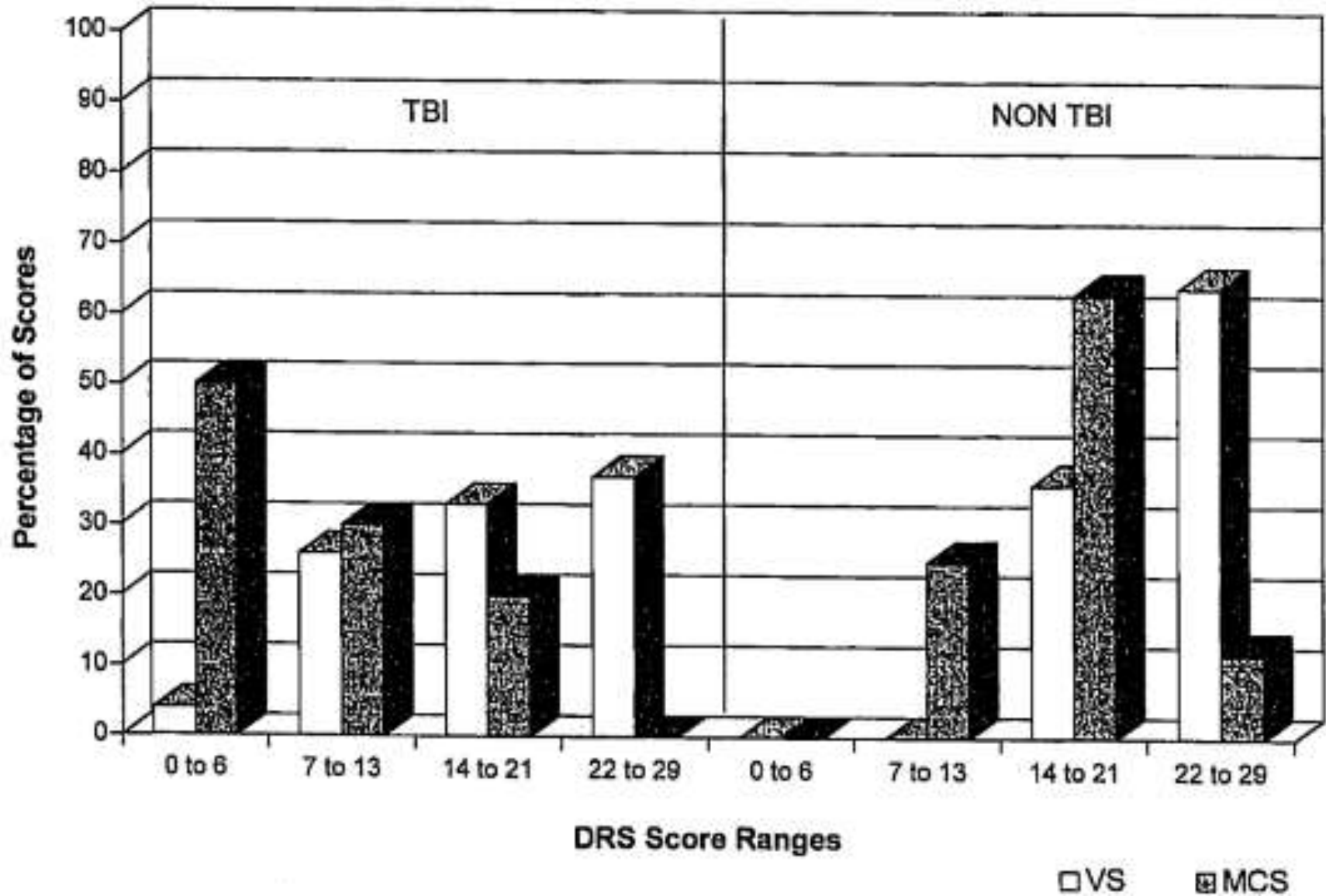
The Vegetative and Minimally Conscious States: A Comparison of Clinical Features and Functional Outcome

Giacino & Kalmar *Journal of Head Trauma Rehabilitation* · August 1997

55 VS, 49 MCS



Les patients en état de conscience minimale ont un meilleur pronostic fonctionnel que les patients végétatifs:



Les études plus récentes montrent des résultats comparables:

Behavioral Recovery in Disorders of Consciousness: A Prospective Study With the Spanish Version of the Coma Recovery Scale–Revised

Noé et al. Arch Phys Med Rehabil Vol 93, March 2012

Characteristic	Emerged From MCS (n=8)	Not Emerged From MCS (n=24)	P
Age (y)	33.4±13.2	41.9±13.8	.10
Chronicity (d)	94±36.4	161.8±85.9	.04
Sex			
Female	2 (25)	8 (33.3)	NS
Male	6 (75)	16 (66.7)	
Etiology			
TBI	6 (75)	9 (37.5)	.06
Non-TBI			
Hemorrhagic stroke	1 (12.5)	11 (45.9)	
Anoxic encephalopathy	1 (12.5)	4 (16.7)	
Education (y)	9.8±3	10±3.9	NS
Neurologic status at admission			
VS	1 (12.5)	11 (47.8)	
MCS	7 (87.5)	13 (52.2)	.09

32patients:
12VS/20MCS
Inclusion: 144 d.
Suivi: 6 mois

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Behavioral Recovery in Disorders of Consciousness: A Prospective Study With the Spanish Version of the Coma Recovery Scale–Revised

Noé et al. Arch Phys Med Rehabil Vol 93, March 2012

Characteristic	Multivariate Model		
	B ± SE	P	Multivariate OR (95% CI)
Chronicity (d) (≤ 94 vs >94)	-3.5 ± 1.4	.01	0.03 (0.002–0.5)
Age (y) (≤ 33 vs >33)	NA	NS	NA
Sex (male vs female)	NA	NS	NA
Etiology (traumatic vs nontraumatic)	NA	NS	NA
Education (y)	NA	NS	NA
CRS–R at admission (total score)	NA	NS	NA
Initial status (VS vs MCS)	NA	NS	NA
Number of subscales (visual alone vs visual + other)	1.2 ± 0.7	.07	3.4 (0.8–13.4)

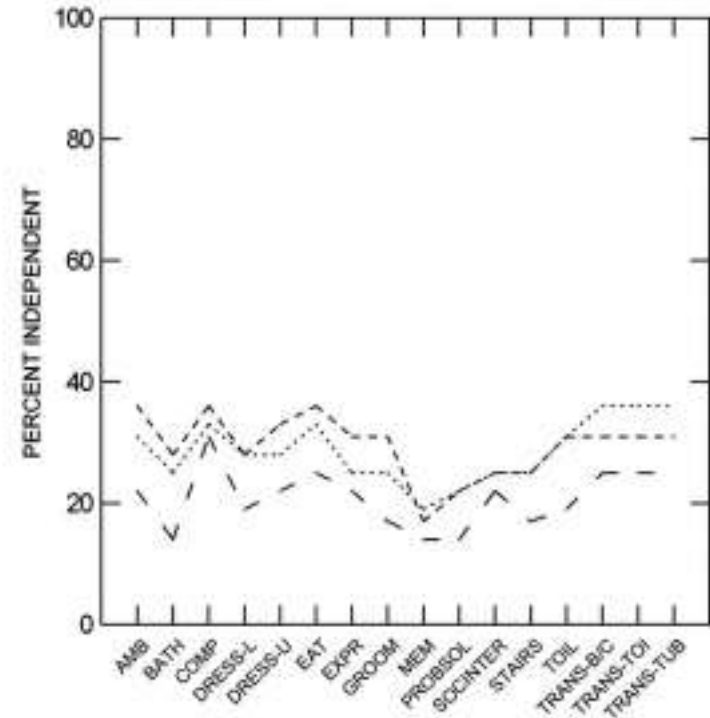
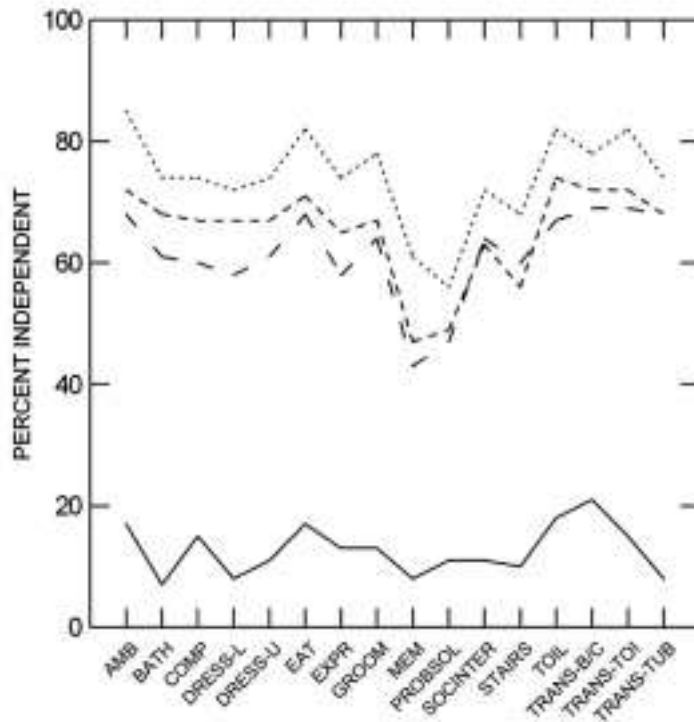
Les études plus récentes montrent des résultats comparables:

Functional Outcomes in Traumatic Disorders of Consciousness: 5-Year Outcomes From the National Institute on Disability and Rehabilitation Research Traumatic Brain Injury Model Systems



Whyte et al. Archives of Physical Medicine and Rehabilitation 2013;94:1855-60

108 patients (MCS/VS), admission:36.9 d., discharge 92.5 d.



Les études plus récentes montrent des résultats comparables:

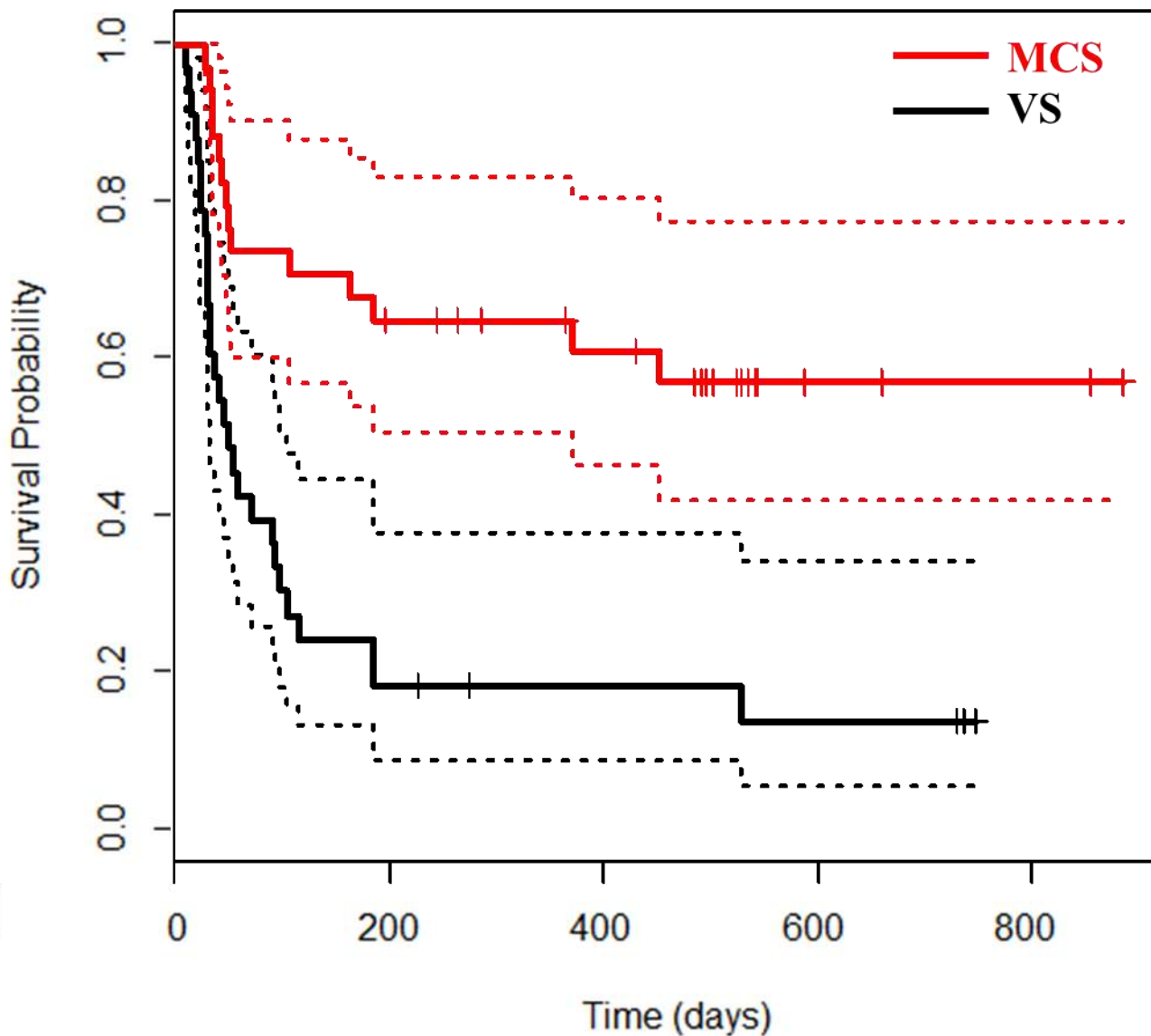
Rehabilitation outcome of anoxic-ischaemic encephalopathy survivors with prolonged disorders of consciousness[☆]

Howell et al. *Resuscitation* 84 (2015) 1409–1415

	Total	Favourable functional outcome (GOS 4–5)	Unfavourable functional outcome (GOS 1–3)	Recovery of consciousness (CRS ≥ 23)	Persistent VS/MCS (CRS ≤ 22)
Number of patients (n)	113	7 (6.2%)	106 (93.8%)	22 (19.5%)	91 (80.5%)
Male (%)	74	71	75	55	80 [*]
Age at event (years mean, SD)	55 (16)	41 (8)	56 (16) [*]	49 (17)	56 (16) [*]
LOS in ICU (days)	27 (13)	23 (13)	28 (13)	23 (13)	28 (13) [*]
LOS rehabilitation (days)	84 (50)	133 (46)	81 (48) [*]	114 (48)	77 (48) ^{**}
Hypothermia treatment (%)	35	29	36	41	34
Tracheotomy (%)	69	43	71	45	75 [*]
Malignant SEP ^a (%)	30	14	31	23	32
Secondary diagnoses (n)	1.4 (1.1)	0.7 (0.8)	1.5 (1.1)	1.1 (1.0)	1.5 (1.1)
VS at rehab. admission (%)	66	43	68	36	74 ^{**}
Initial FIM (mean, SD)	18 (0)	18 (0)	18 (0)	18 (0)	18 (0)
FIM at discharge (mean, SD)	25 (19)	91 (11)	20 (8) ^{**}	52 (32)	18 (0) ^{**}
MCID FIM (%)	8	100	2 ^{**}	41	0 ^{**}
Initial CRS (mean, SD)	9 (5)	14 (5)	9 (5) [*]	13 (5)	8 (4) ^{**}
CRS at discharge (mean, SD)	13 (7)	24 (0)	13 (7) ^{**}	24 (0)	11 (6) ^{**}
Discharge home or to further rehabilitation (%)	25	100	23 ^{**}	73	16 ^{**}

Les études plus récentes montrent des résultats comparables:

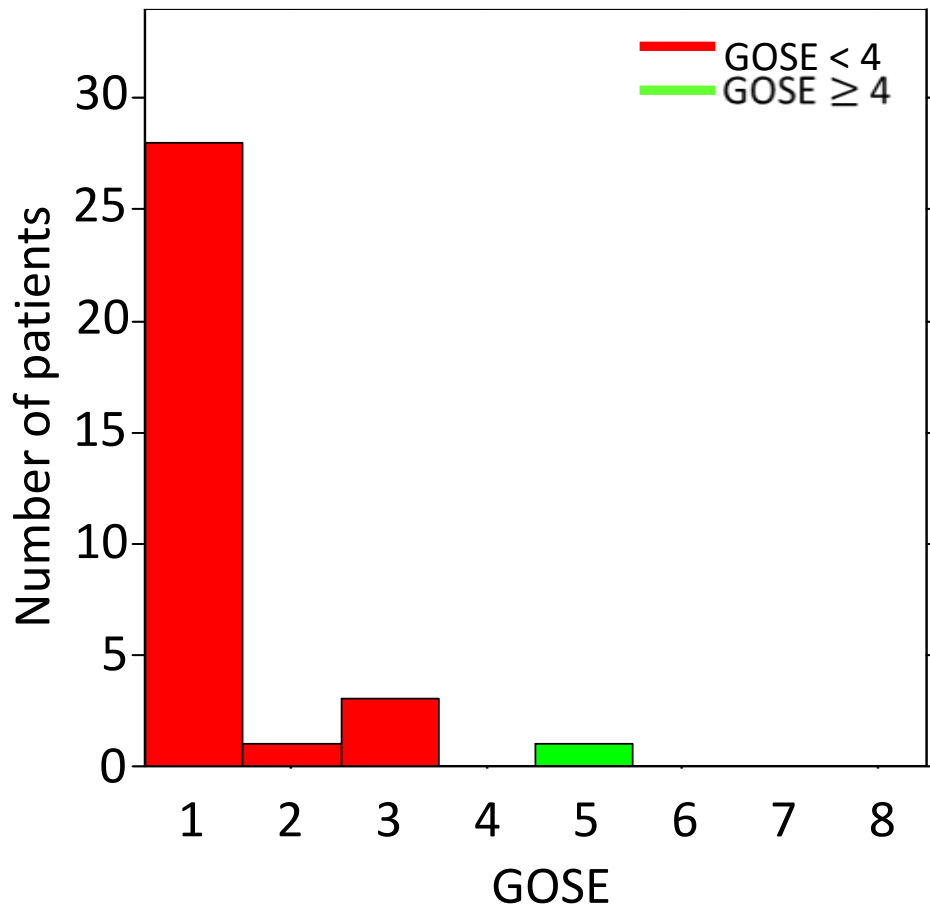
Survival and consciousness recovery are better in the minimally conscious state than in the vegetative state. Faugeras et al. Under review



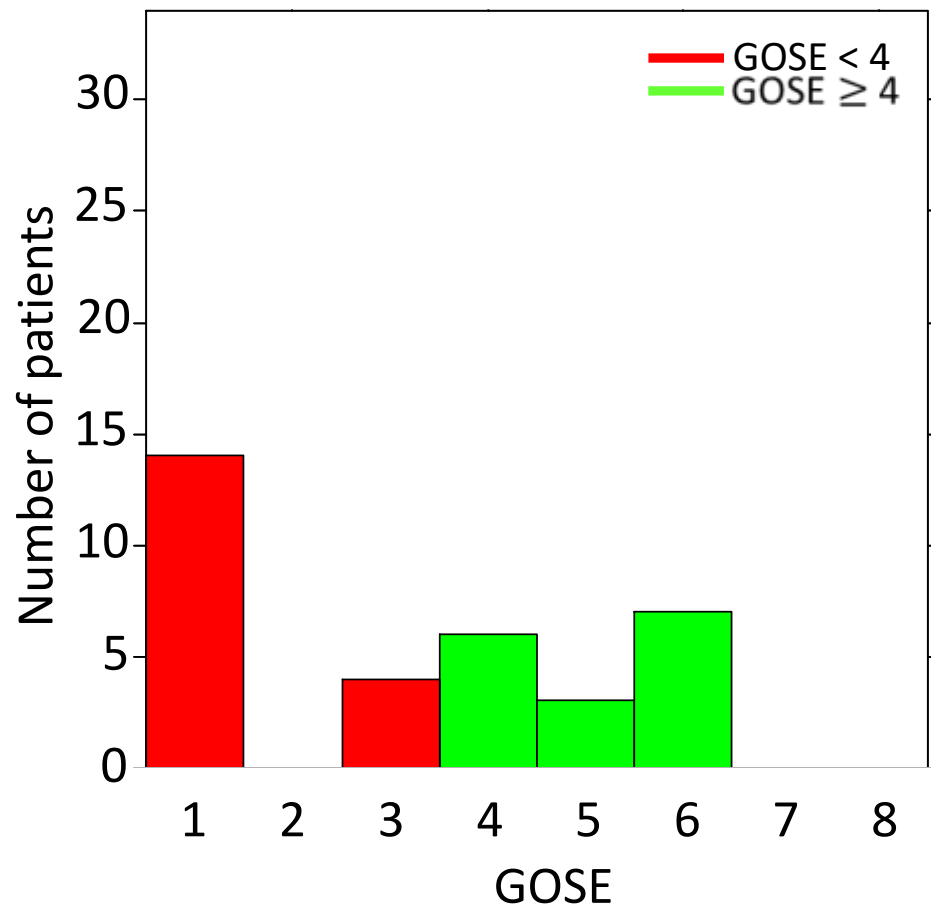
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VS



MCS



Facteurs pronostiques importants: statut clinique (VS/MCS), âge, étiologie.

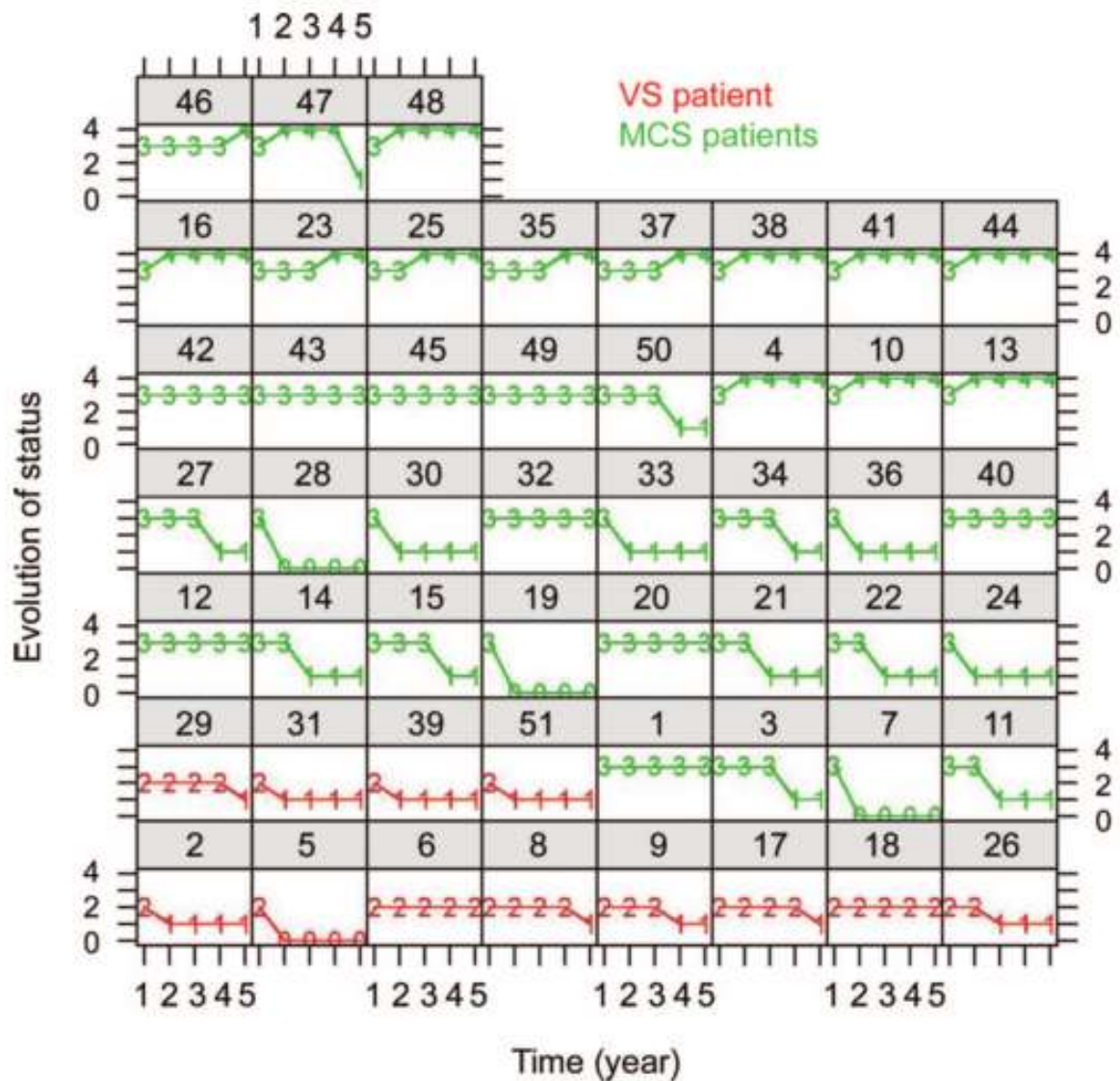
Des récupérations tardives sont possibles:

Long-term outcomes of chronic minimally conscious and vegetative states



J. Luauté et al. *Neurology*[®] 2010;75:246-252

Des récupérations tardives sont possibles mais s'accompagnent d'un lourd handicap:



VS patients: 9 décès, 2 VS, 1 pdv
 MCS patients: 14 décès, 9 MCS, 3 pdv, 13 exit MCS (1/3)

Des récupérations tardives sont possibles mais s'accompagnent d'un lourd handicap:

Predictors	Deterioration	
	OR (95% CI) ^a	p
Initial status		
Minimally conscious state	1	
Vegetative state	3.37 (1.28-8.87)	0.014
Age, y		
<39	1	
≥39	2.58 (1.03-6.45)	0.042
Sex		
Female	1	
Male	1.52 (0.58-3.97)	0.391
Etiology		
Other	1	
Ischemic-anoxic encephalopathy and TBI + ischemic-anoxic encephalopathy	2.69 (0.88-8.22)	0.083
TBI		
Initial Glasgow Coma Scale score		
5-8	1	
≤4	2.51 (0.86-7.35)	0.094
Pupillary reflex		
Present	1	
Absent	2.91 (0.92-9.22)	0.069

Late recovery after traumatic, anoxic, or hemorrhagic long-lasting vegetative state



Estraneo et al. *Neurology*® 2010;75:239-245

	TBI (n = 18)	Hemorrhagic (n = 18)	Anoxic (n = 14)	Total sample (n = 50)
Age, y, mean ± SD	43.6 ± 17.6	64.1 ± 14.3	44.2 ± 20.7	51.1 ± 9.6
Final Outcome				
Death	7	8	6	21
VS	3	9	5	17
MCS	3	1	1	5
Consciousness	5	—	2	7
Timing of recovery of responsiveness in survivors, mo				
<12	2	—	—	2
12-18	3	1	2	6
19-24	2	—	1	3
>24	1	—	—	1

Late recovery after traumatic, anoxic, or hemorrhagic long-lasting vegetative state

Estraneo et al. *Neurology*® 2010;75:239-245



Patient	Age at onset, y	Sex	Etiology	Pupillary light reflex at study entry	DRS at study entry	DRS at last examination	Treatment/intervention ^a
1	36	M	CHI (road accident)	Present	23	17	Am
2	37	M	CHI (road accident)	Present, with anisocoria	24	17	VPS (2)
3	27	M	CHI (road accident)	Present	24	16	Am
4	41	M	CHI (road accident)	Present	24	17	VPS (16), Am
5	47	M	CHI (road accident)	Present	24	20	VPS (1), Am
6	17	F	CHI (road accident)	Present	25	21	VPS (1), CP (26), Am ^b
7	17	M	Anoxia (in-hospital cardiac arrest)	Present	25	21	TH, ITB (18), Am ^b
8	14	F	Anoxia (out-of-hospital cardiac arrest due to folgoration)	Present	24	14	Am
9	40	M	Anoxia (in-hospital cardiac arrest)	Present	24	17	—
10	43	M	HS (aneurysm of left middle cerebral artery)	Present	25	21	VPS (11), Am

Take home message:

Les facteurs pronostiques les plus déterminants sont:

l'étiologie: traumatique > non traumatique

le statut clinique: MCS > VS

le délai: court > long (VS: 3 mois et 12 mois)

l'âge: jeune > âgé

les comorbidités

Les récupérations tardives sont possibles:

MCS > VS

degré de handicap +++

Merci de votre attention