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La réhabilitation précoce

Une affaire de tous

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"The concept of mobilization is large, complex, and interdisciplinary"

Arias-Fernandez P and al, J. Phys. Ther. Sci. 30: 1193–1201, 2018

ERPHAN
Équipe de recherche paramédicale sur le handicap neuromoteur

UVSQ
université PARIS-SACLAY

Pas de conflit d'intérêt

The NEW ENGLAND JOURNAL of MEDICINE

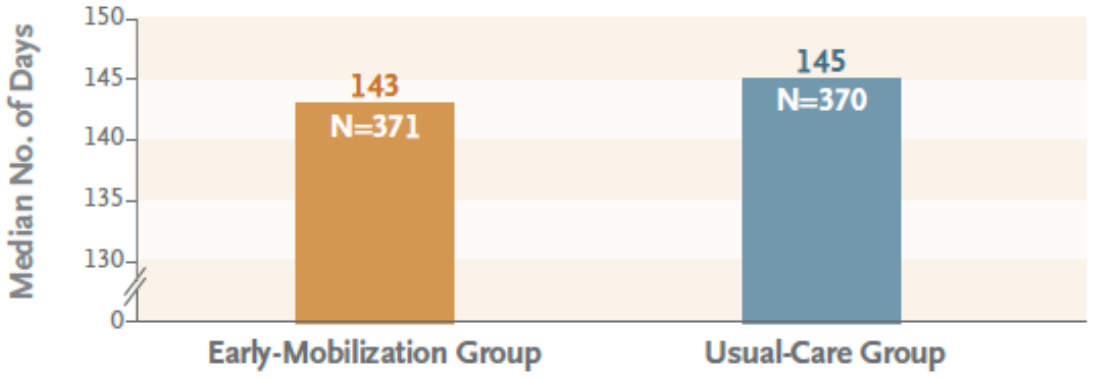
RESEARCH SUMMARY

Early Active Mobilization during Mechanical Ventilation in the ICU

The TEAM Study Investigators and the ANZICS Clinical Trials Group DOI: 10.1056/NEJMoa2209083

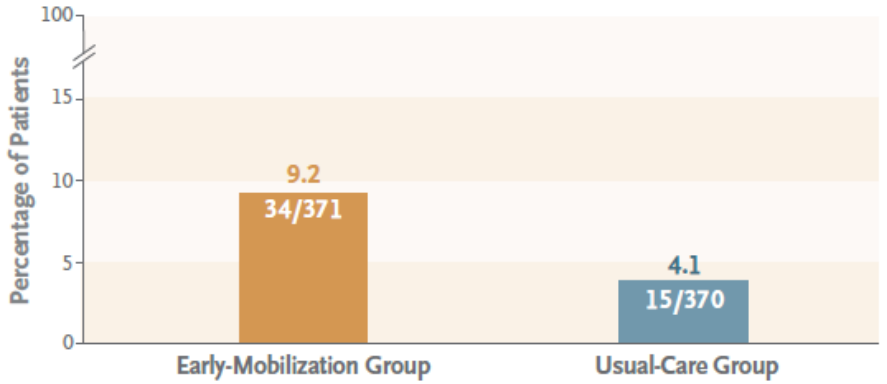
Days Alive and Out of the Hospital at Day 180

Difference, –2.0 days (95% CI, –10 to 6); P=0.62



Patients with ≥1 Adverse Event Potentially Due to Mobilization

OR, 2.55 (1.33–4.89); P=0.005



MERCI POUR VOTRE ATTENTION

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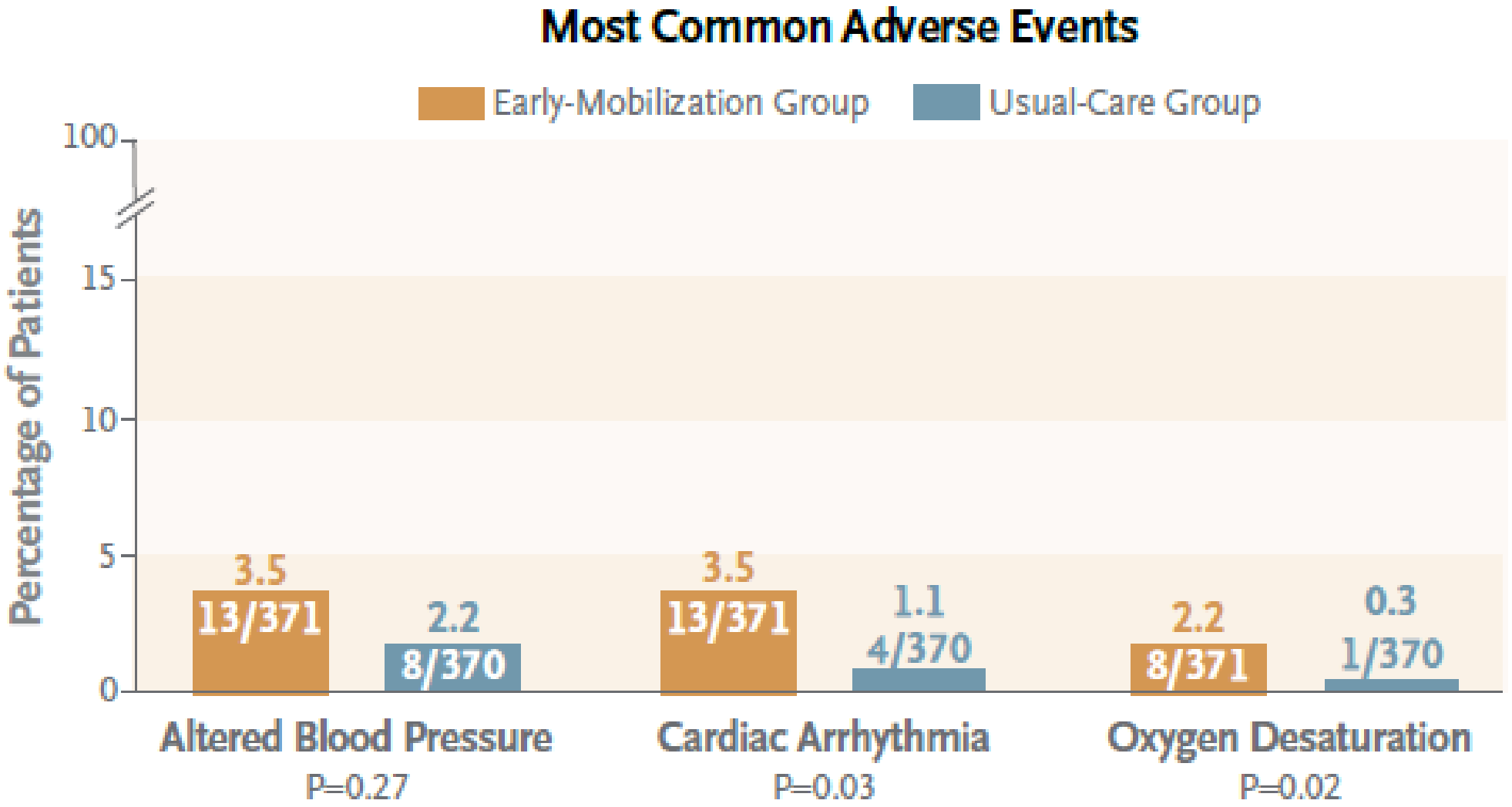
Most Common Adverse Events
Early-Mobilization Group
Usual-Care Group
Percentage of Patients
100
15
10
5
0
3.5
13/371
2.2
8/370
3.5
13/371
1.1
4/370
2.2
8/371
0.3
1/370
Altered Blood Pressure
P=0.27
Cardiac Arrhythmia
P=0.03
Oxygen Desaturation
P=0.02

LIMITATIONS AND REMAINING QUESTIONS

- Patients in the usual-care group received a higher level of mobilization than those in some other studies, which could have influenced differences in mobilization between the intervention and usual-care groups.
- Some patients were not actively mobilized in the ICU, owing to factors such as sedation and agitation. As a result, the power of the trial to detect a between-group difference was reduced.
- Assessment of adverse events may have been subject to surveillance bias because treatment assignments were unblinded.

Table 2. Mobilization in the ICU.*

Characteristic	Early Mobilization (N=371)	Usual Care (N=370)	Between-Group Difference (95% CI)†
Patients who were assessed by a physiotherapist on day of randomization — no./total no. (%)	320/370 (86.5)	265/363 (73.0)	13.5 (6.7 to 20.3)
No. of days per patient when physiotherapy assessment occurred	0.94±0.11	0.81±0.24	0.14 (0.12 to 0.16)
No. of minutes of active mobilization per day	20.8±14.6	8.8±9.0	12.0 (10.4 to 13.6)
Mobilization milestones‡			
IMS 3 or higher			
Patients — no. (%)	331 (89.2)	330 (89.2)	0 (−4.3 to 4.3)
Median no. of days since randomization (IQR)	3 (1 to 6)	4 (2 to 7)	−1 (−2.2 to −0.2)
IMS 4 or higher			
Patients — no. (%)	287 (77.4)	286 (77.3)	0.1 (−6.0 to 6.1)
Median no. of days since randomization (IQR)	3 (2 to 7)	5 (3 to 8)	−2 (−3.4 to −0.6)
IMS 7 or higher			
Patients — no. (%)	176 (47.4)	150 (40.5)	6.9 (−0.2 to 14.0)
Median no. of days since randomization (IQR)	5 (3 to 8)	7 (4 to 13)	−2 (−3.4 to −0.7)
Median peak IMS (IQR)	6 (4 to 8)	6 (4 to 8)	0 (−1 to 1)

Il reste de la place pour la réhabilitation précoce!

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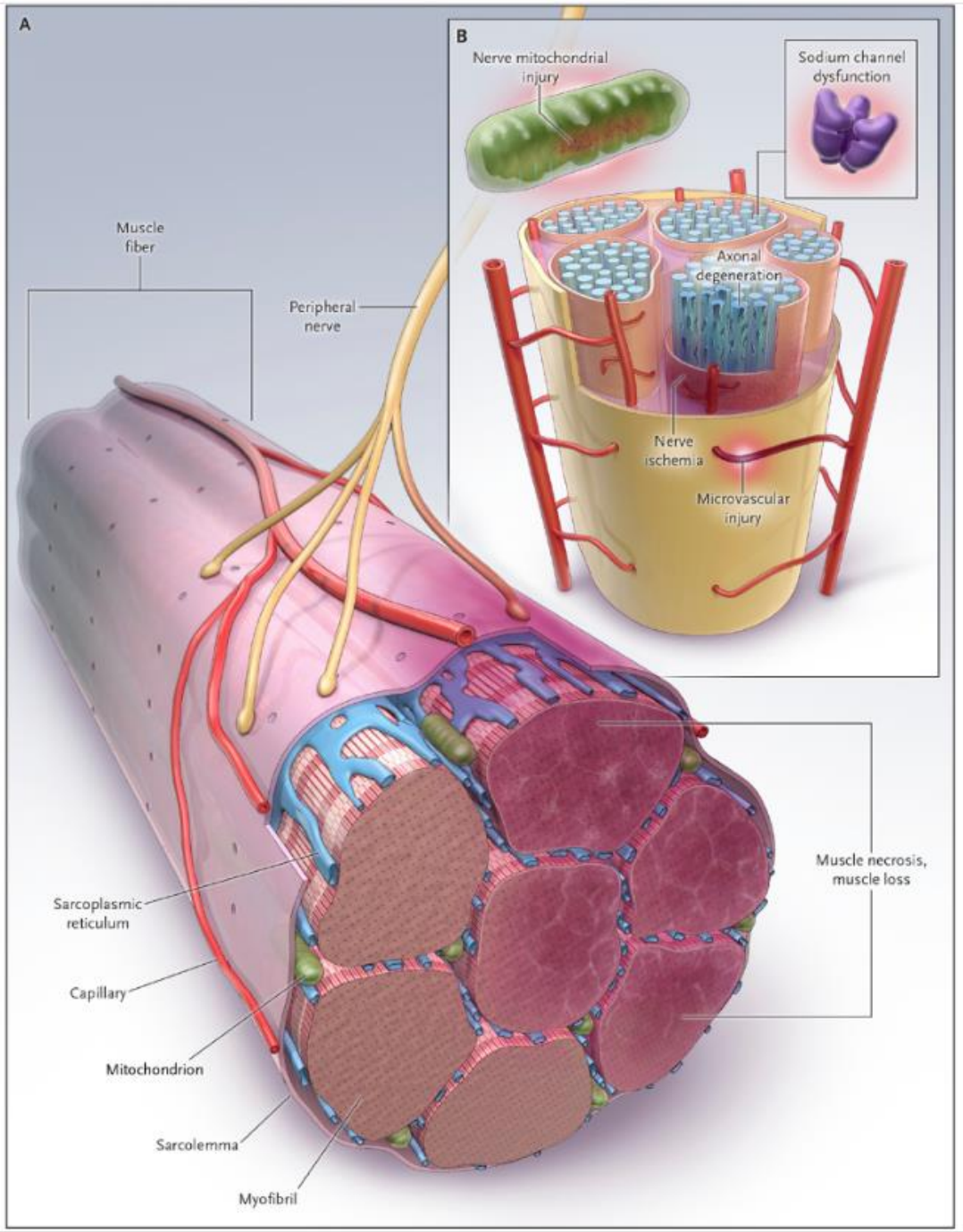
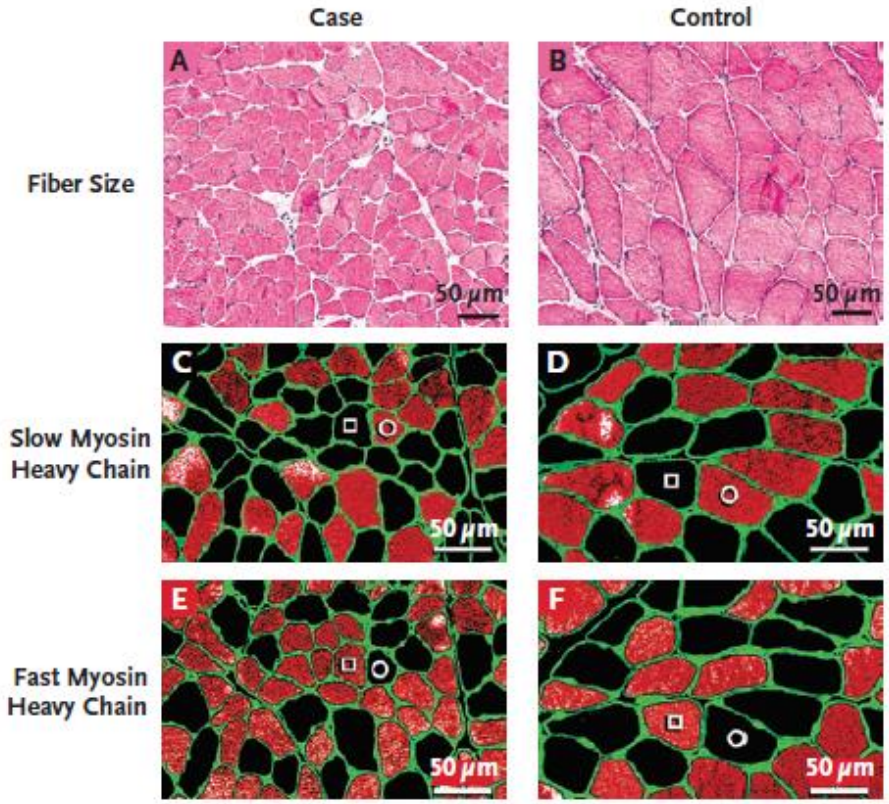
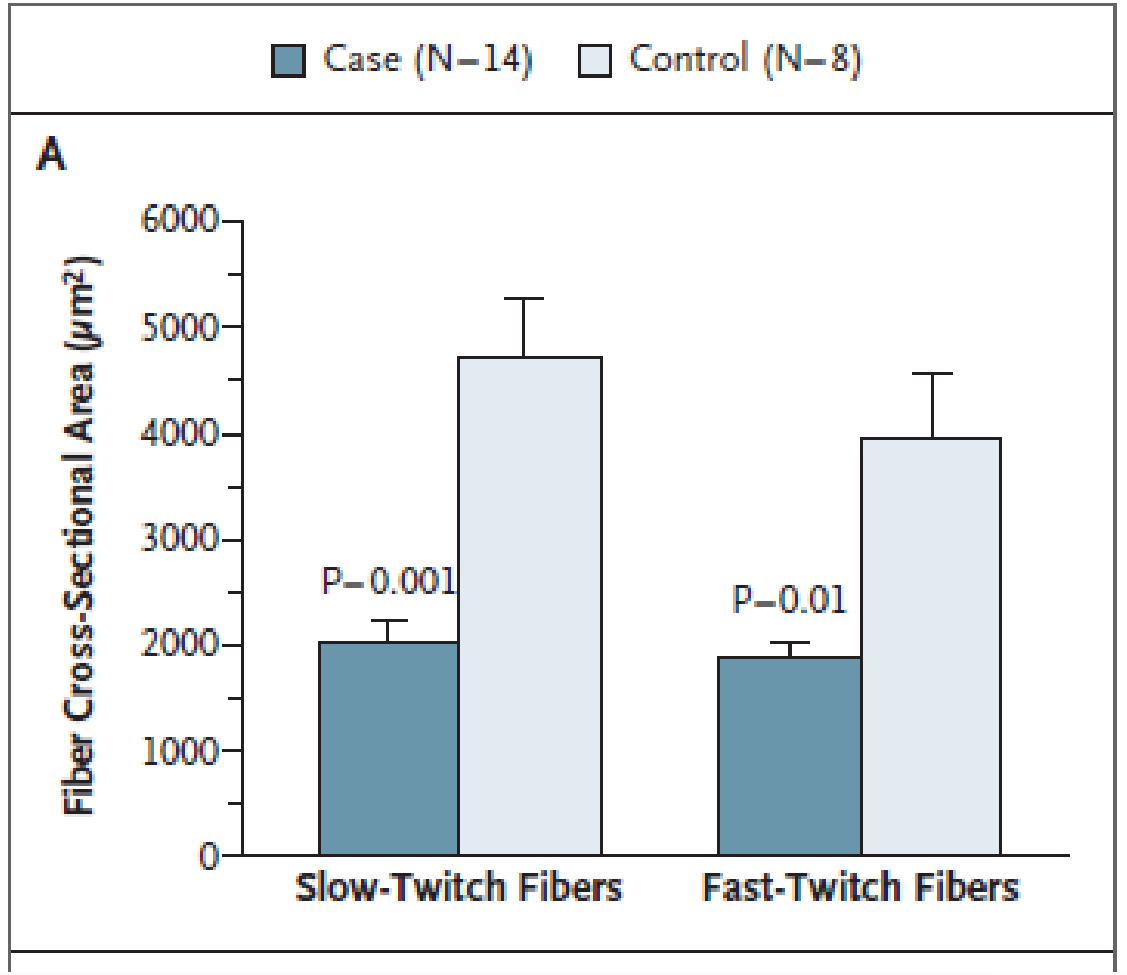


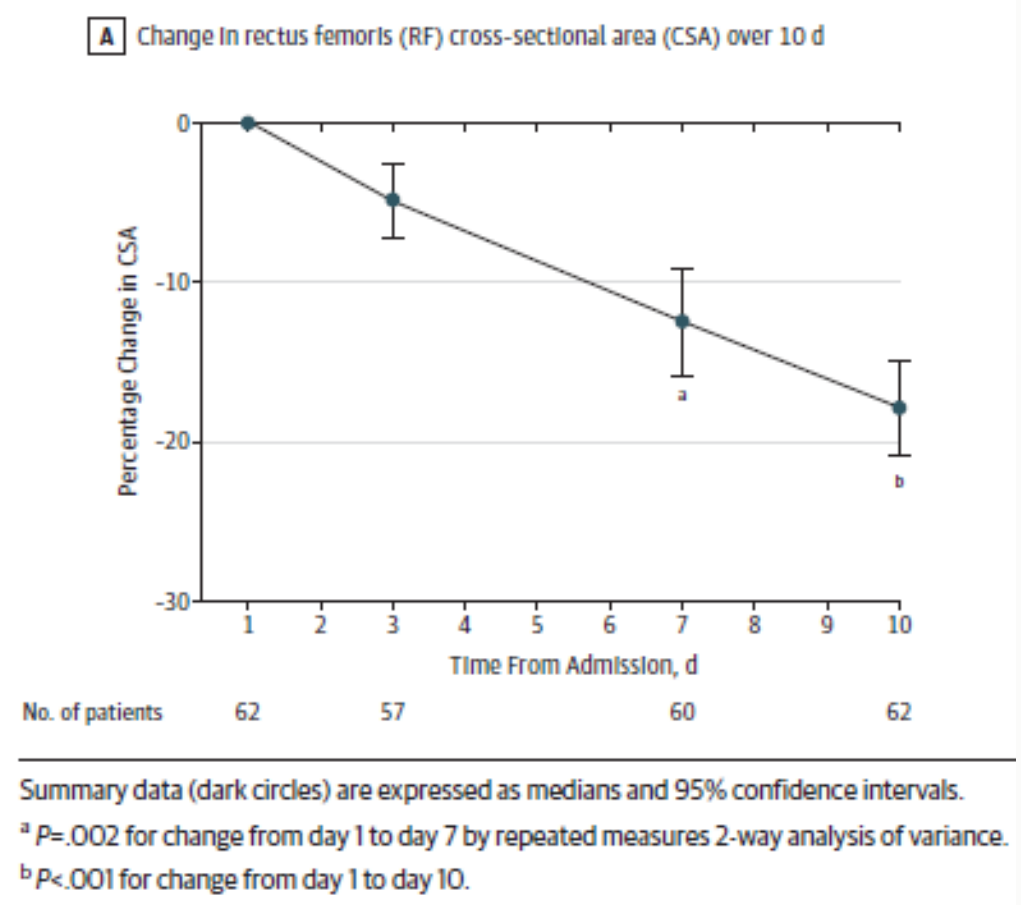
L'atteinte musculaire en réanimation

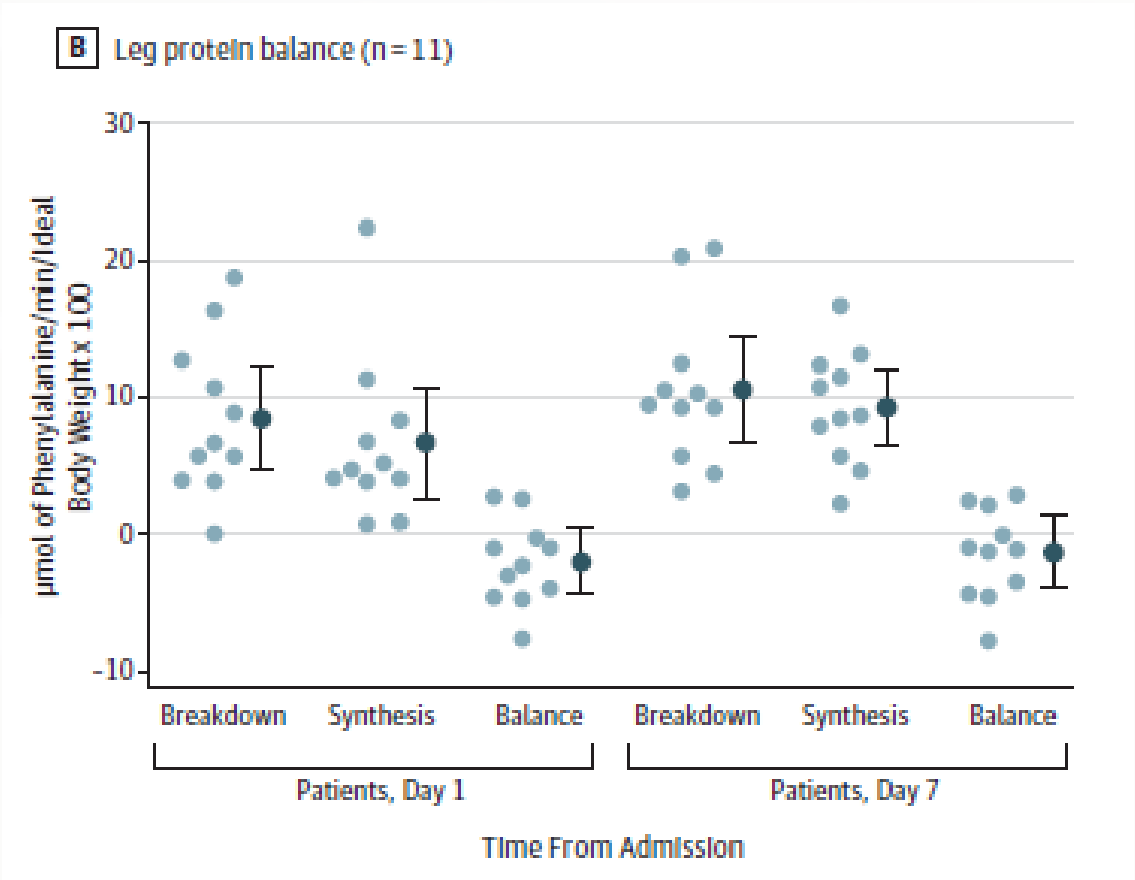
The NEW ENGLAND JOURNAL of MEDICINE
ESTABLISHED IN 1812 MARCH 27, 2008 VOL. 358 NO. 13

Rapid Disuse Atrophy of Diaphragm Fibers in Mechanically Ventilated Humans



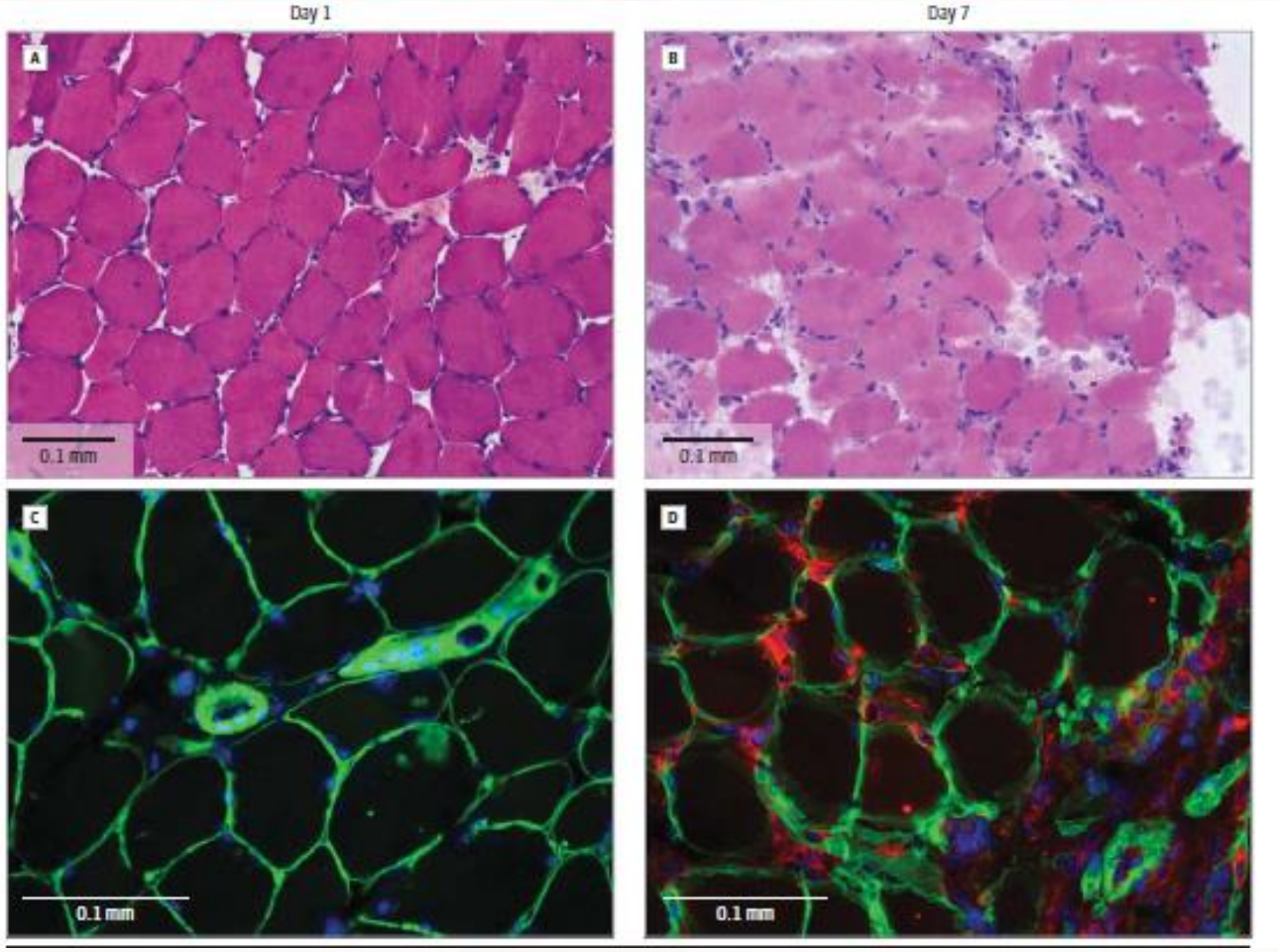




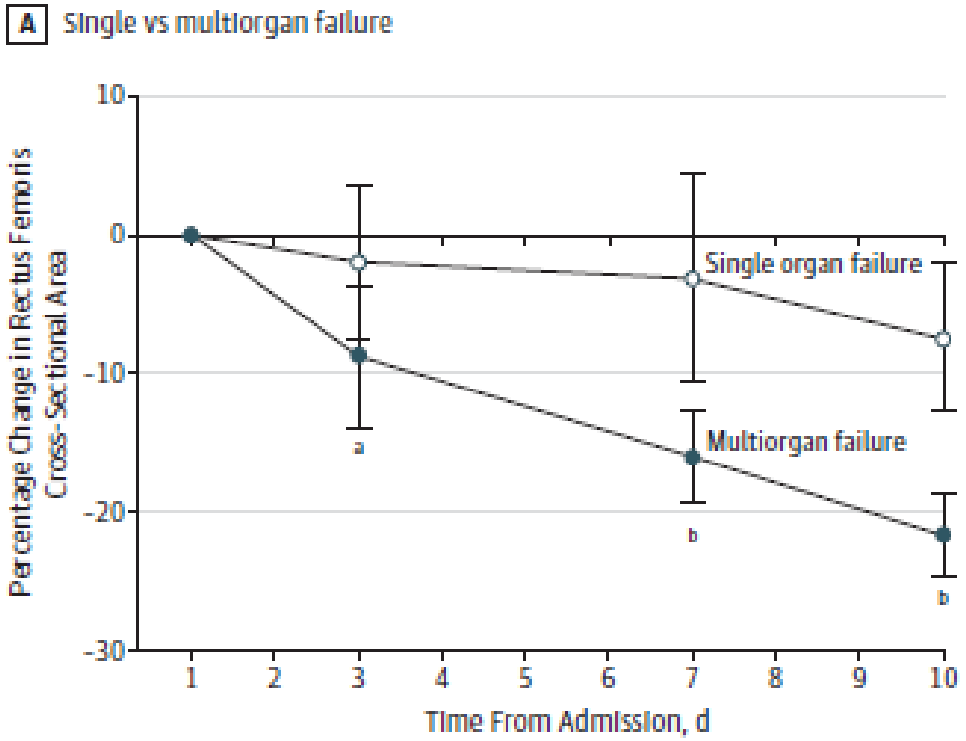


Une atteinte musculaire précoce et rapide

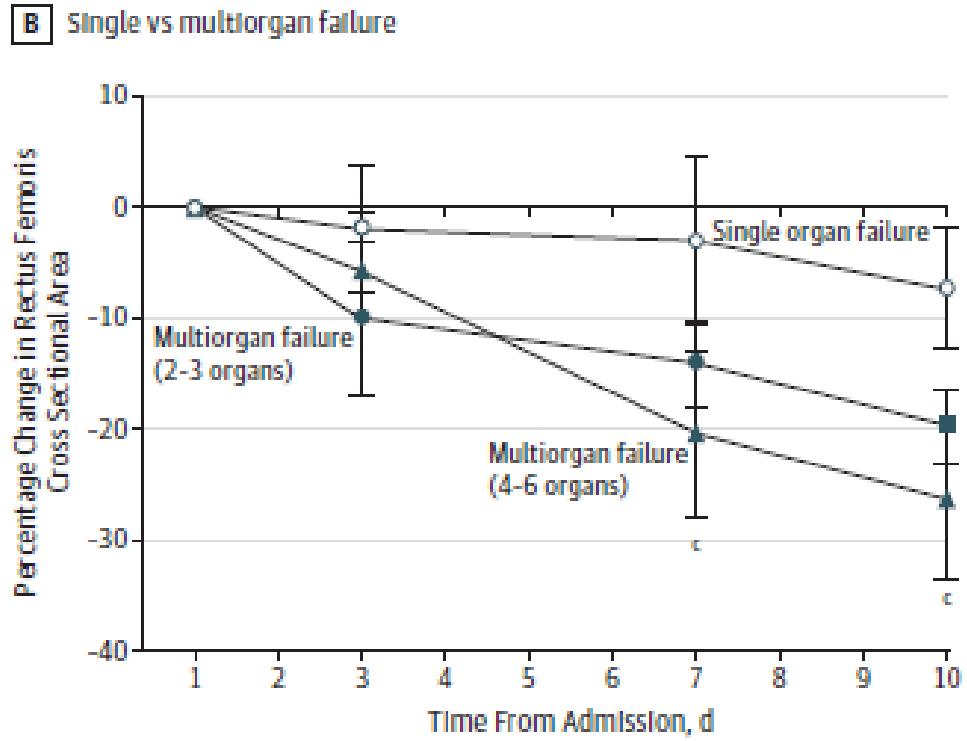
Des répercussions en 7 jours



- Dès J1:
  - Augmentation de la destruction protéinique vs. synthèse protéinique
  - Modification de la signalisation cellulaire
- Entre J1 et J7:
  - Diminution de 10% de la CSA du Droit Fémoral
  - Diminution de 20% de la CSA des Fibres Musc
  - Diminution de 30% du Ratio Protéine/ADN
- A J10:
  - Diminution de 18% de la CSA du Droit Fémoral



No. of patients				
Single organ failure	15	14	15	15
Multiorgan failure	47	43	45	47

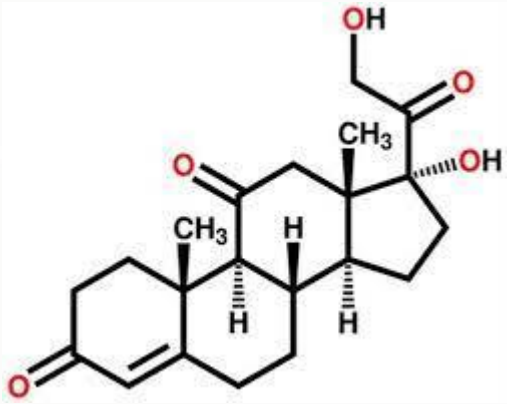


No. of patients				
Single organ failure	15	14	15	15
Multiorgan failure				
2-3 Organs	33	31	32	33
4-6 Organs	14	12	13	14

Majorée par la défaillance multi-organes

Facteurs de risques

1. Immobilité prolongée
2. Inflammation systémique (sepsis…)
3. Sédation profonde
4. Corticostéroïdes (amyotrophie ++)
5. Curares (jonction neuromusculaire)
6. Hyperglycémie



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Le premier travail d'équipe

Lutter contre l'immobilité

Comment faire marcher un patient sous Ventilation invasive?

Fig. 2. The 100 percent self-inflating bag should be used when a patient requires an inspired oxygen concentration greater than 40 percent.

Fig. 1. The nurse-therapist team is shown assisting ambulation of a patient recovering from a bout of respiratory failure.

Et puis vient le temps de l'automatisation

Le premier respirateur portable autonome!

Although the method utilized is not critical, the concept of early ambulation is clinically useful and rests on a sound physiologic basis. Patient acceptance has been excellent. It is our impression that by early ambulation, weaning has been facilitated and hastened, and the problems of prolonged bed and chair rest minimized.

J. Robert Burns, M.D., F.C.C.P.
and Frederick L. Jones, Jr., M.D., F.C.C.P.
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Geisinger Medical Center
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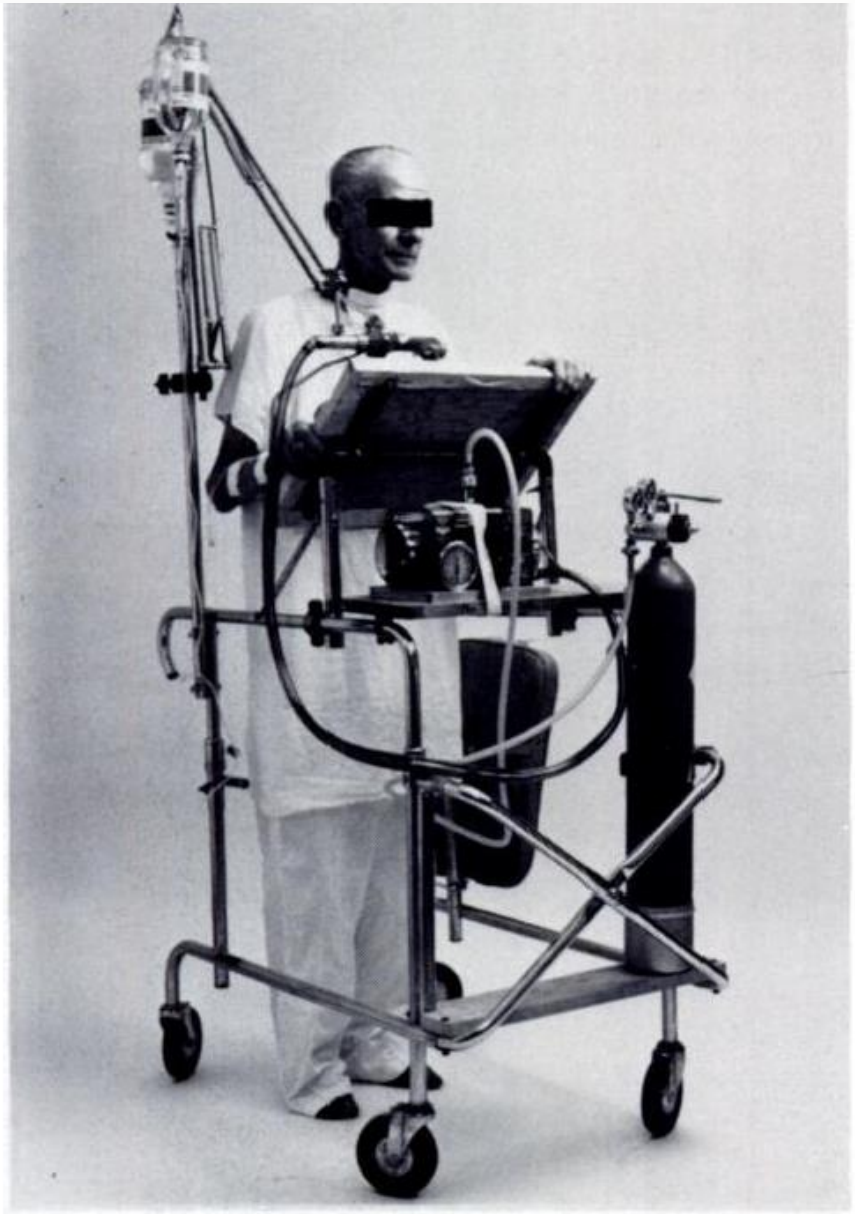

FIGURE 1. Device for early ambulation of patients requiring ventilatory assistance.

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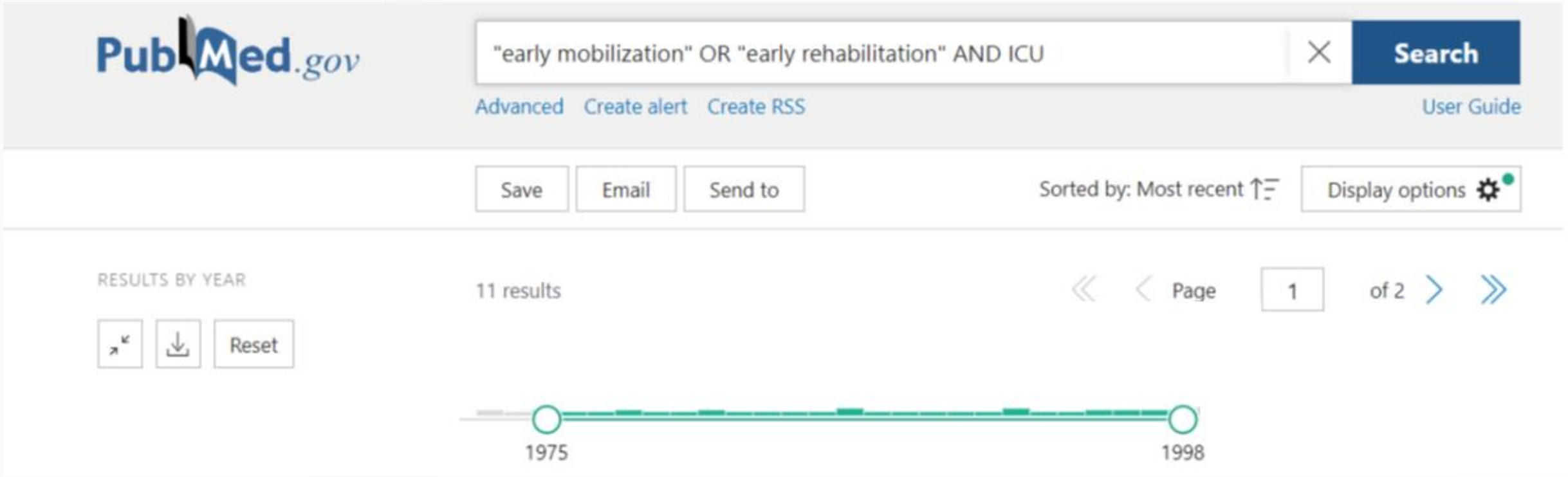

Suspended Life or Extending Death?

But what I see these days are paralyzed, sedated patients, lying without motion, appearing to be dead, except for the monitors that tell me otherwise.

Why this syndrome of sedation and paralysis has emerged baffles me, because this was not the case in the past. We rarely paralyzed patients, unless they were convulsing or totally out of control. The only drugs that we used for sedation and pain were morphine and occasionally low doses of benzodiazepines.

When we first started our unit in 1964, patients who required mechanical ventilation were awake and alert and often sitting in a chair eating food, which was made possible by the use of a tracheostomy early in the patient's course, where the predicted need for mechanical ventilation would be for more than a few days. By being awake and alert, these individuals could interact with their family, friends, and the environment. They could feel human. By so doing, they could sustain the zest for living, which is a requirement for survival.

Une affaire de TOUS?

PubMed®

"early mobilization" OR "early rehabilitation" and ICU

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RESULTS BY YEAR

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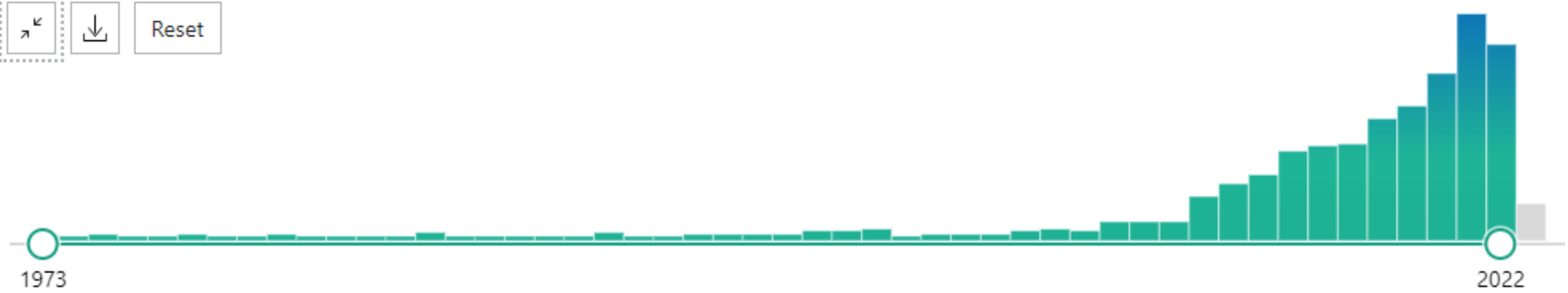


Revue systématique 2020 => Etudes => 01/05/2017

ELSEVIER
Physiotherapy
Physiotherapy 107 (2020) 1–10

Systematic review

Early rehabilitation reduces the likelihood of developing intensive care unit-acquired weakness: a systematic review and meta-analysis

David E. Anekwe[a,b,c], Sharmistha Biswas[d,e], André Bussières[a,c], Jadranka Spahija[a,b,c,*]

Study or Subgroup	Favours Early Rehab Events	Total	Usual Care Events	Total	Weight	Odds Ratio M-H, Random, 95% CI
1.1.1 In Screened Population						
Dantas 2012	4	14	7	14	5.9%	0.40 [0.08, 1.91]
Denehy 2013	16	57	13	49	19.5%	1.08 [0.46, 2.55]
Fischer 2016	1	14	1	10	1.7%	0.69 [0.04, 12.57]
Hodgson 2016	7	25	10	20	9.4%	0.39 [0.11, 1.34]
Kayambu 2015	9	19	14	23	9.5%	0.58 [0.17, 1.98]
Kho 2015	1	12	5	17	2.7%	0.22 [0.02, 2.17]
Routsi 2010	3	24	11	28	7.0%	0.22 [0.05, 0.92]
Schaller 2016	50	76	51	77	32.1%	0.98 [0.50, 1.91]
Schweikert 2009	6	40	13	41	12.1%	0.38 [0.13, 1.13]
Subtotal (95% CI)		**281**		**279**	**100.0%**	**0.63 [0.43, 0.92]**
Total events	97		125			
Heterogeneity: Tau² = 0.00; Chi² = 7.86, df = 8 (P = 0.45); I² = 0%						
Test for overall effect: Z = 2.36 (P = 0.02)						
1.1.2 In Total Population Randomized						
Dantas 2012	16	26	26	33	6.4%	0.43 [0.14, 1.36]
Denehy 2013	33	74	40	76	20.4%	0.72 [0.38, 1.38]
Fischer 2016	14	27	18	27	7.0%	0.54 [0.18, 1.62]
Hodgson 2016	11	29	11	21	6.5%	0.56 [0.18, 1.73]
Kayambu 2015	16	26	15	24	6.5%	0.96 [0.31, 3.01]
Kho 2015	5	16	6	18	4.1%	0.91 [0.22, 3.84]
Routsi 2010	47	68	55	72	15.1%	0.69 [0.33, 1.46]
Schaller 2016	78	104	70	96	21.1%	1.11 [0.59, 2.10]
Schweikert 2009	15	49	27	55	13.0%	0.46 [0.20, 1.02]
Subtotal (95% CI)		**419**		**422**	**100.0%**	**0.71 [0.53, 0.95]**
Total events	235		268			
Heterogeneity: Tau² = 0.00; Chi² = 4.63, df = 8 (P = 0.80); I² = 0%						
Test for overall effect: Z = 2.31 (P = 0.02)						

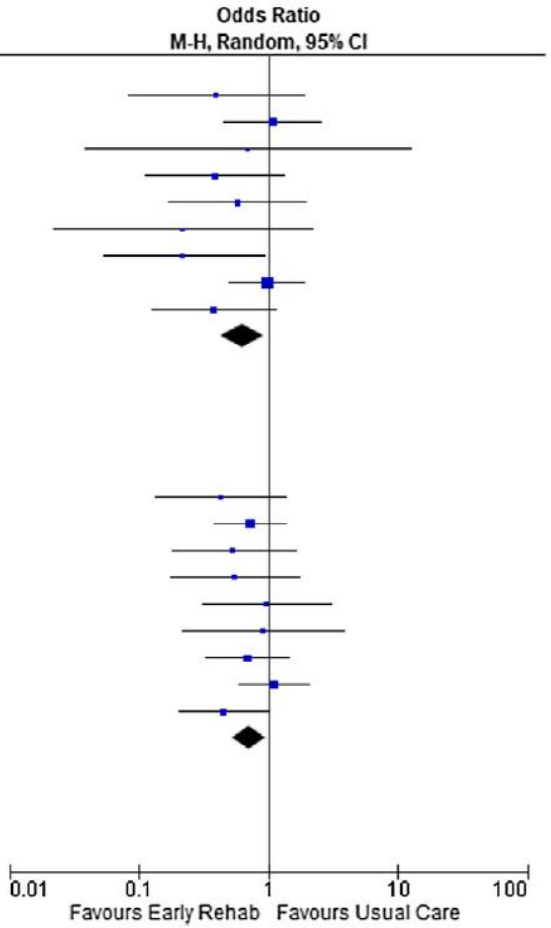


Fig. 2. Forest plot of comparison: incidence of ICUAW between early rehabilitation versus usual care in both the screened population and the randomized population *(timepoint: last ICUAW assessment)*.

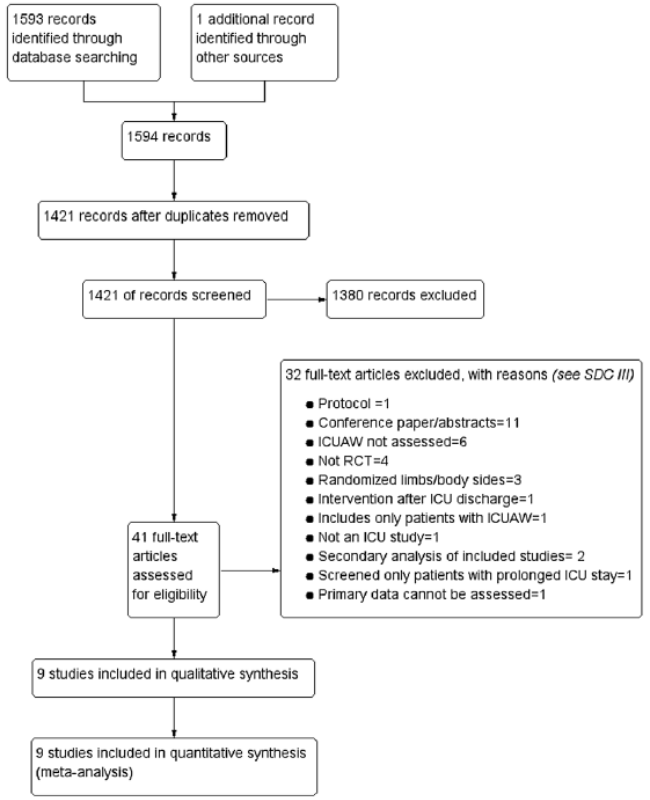


Fig. 1. PRISMA flow diagram.

Une affaire de TOUS?

- Réduction de l'exposition à certaines drogues
- Mobilisation précoce

ABCDEF bundle intervention

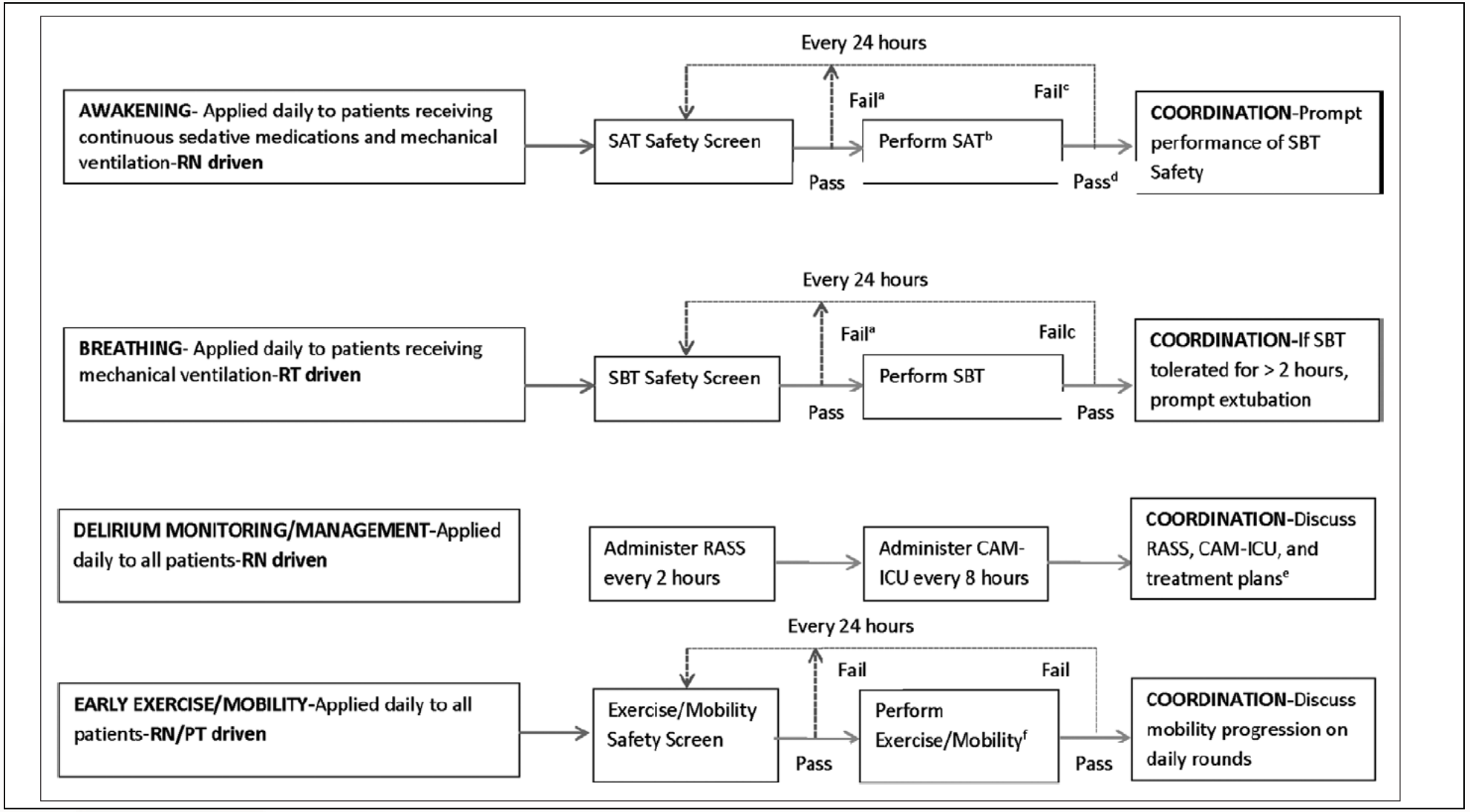
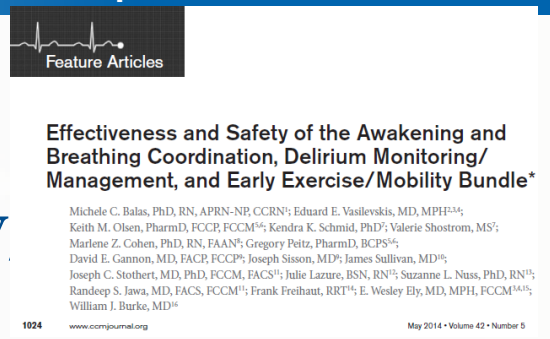


TABLE 3. Effectiveness Outcomes of ABCDE Bundle Implementation

ABCDE Bundle Component Outcome	Pre-ABCDE Bundle ($n = 146$)	Post-ABCDE Bundle ($n = 150$)	Unadjusted p	Adjusted Odds Ratio	Adjusted p
Awakening and breathing coordination[a]					
Ventilator-free days[a]					
Mean (SD)	15 (11.4)	18 (10.6)			
Median (IQR)	21 (0–25)	24 (7–26)	0.04		
Delirium monitoring/management					
Delirium anytime, *n* (%)	91 (62.3)	73 (48.7)	0.02	0.55[b] (0.33–0.93)	0.03
Duration of delirium, days, median (IQR)	3 (1–6)	2 (1–4)	0.52		
Percent ICU days spent delirious, median (IQR)	50 (30–64.3)	33.3 (18.8–50)	0.003		
Coma anytime, *n* (%)	41 (28.1)	43 (28.7)	0.91	1.00[b]	0.99
Coma days, median (IQR)	2 (1–4)	2 (1–5)	0.35		
Percent ICU days spent in coma, median (IQR)	25 (18.2–44.4)	25 (12.5–42.9)	0.89		
Richmond Agitation-Sedation Scale Score, mean (SD)	0.02 (1.4)	−1.03 (1.2)	0.38		
Early exercise/mobility					
Mobilized out of bed anytime in ICU, *n* (%)	70 (48)	99 (66.0)	0.002	2.11[b] (1.30–3.45)	0.003
28-day mortality[c]					
Hospital mortality (ICU and post-ICU), *n* (%)	29 (19.9)	17 (11.3)	0.04	0.56[b] (0.28–1.10)	0.09
ICU mortality, *n* (%)	24 (16.4)	14 (9.3)	0.07		
Time to discharge[d] (d)					
From ICU, median (IQR)	5 (3, 8)	4 (3, 5)	0.21	1.16[e] (0.89–1.50)	0.27
From hospital, median (IQR)	13 (9, 15)	11 (9, 13)	0.99	1.01[e] (0.77–1.31)	0.96


Feature Articles

Effectiveness and Safety of the Awakening and Breathing Coordination, Delirium Monitoring/ Management, and Early Exercise/Mobility Bundle*

Michele C. Balas, PhD, RN, APRN-NP, CCRN[1]; Eduard E. Vasilevskis, MD, MPH[2,3,4]; Keith M. Olsen, PharmD, FCCP, FCCM[5,6]; Kendra K. Schmid, PhD[7]; Valerie Shostrom, MS[7]; Marlene Z. Cohen, PhD, RN, FAAN[8]; Gregory Peitz, PharmD, BCPS[5,6]; David E. Gannon, MD, FACP, FCCP[9]; Joseph Sisson, MD[9]; James Sullivan, MD[10]; Joseph C. Stothert, MD, PhD, FCCM, FACS[11]; Julie Lazure, BSN, RN[12]; Suzanne L. Nuss, PhD, RN[13]; Randeep S. Jawa, MD, FACS, FCCM[11]; Frank Freihaut, RRT[14]; E. Wesley Ely, MD, MPH, FCCM[3,4,15]; William J. Burke, MD[16]

- 18 mois; Etude Av
- 5 ICUs
- 146 prebundle / 150 postbundle
- Ventilator-free days > 3 days

Conclusions: Critically ill patients managed with the Awakening and Breathing Coordination, Delirium monitoring/management, and Early exercise/mobility bundle spent three more days breathing without assistance, experienced less delirium, and were more likely to be mobilized during their ICU stay than patients treated with usual care. (*Crit Care Med* 2014; 42:1024–1036)

ABCDEF bundle safety

TABLE 4. Safety Outcomes of ABCDE Bundle Implementation

Safety Outcome	Pre-ABCDE Bundle ($n = 93$) (%)	Post-ABCDE Bundle ($n = 94$) (%)	p
Any unplanned extubation	7 (7.5)	7 (7.5)	0.98
Any self-extubation[a]	6 (6.5)	5 (5.3)	0.74
Self-extubation requiring reintubation[a]	1 (1.1)	1 (1.1)	0.99
Any reintubation	16 (17.2)	11 (11.7)	0.28
Tracheostomy	15 (16.1)	14 (14.9)	
Underwent imaging related to change in mental status[b]	21 (14.4)	17 (11.3)	0.43
Percent of ICU time in physical restraints (median, interquartile range)[b]	12.7 (0–51.4)	6.9 (0–50)	0.29

ABCDE = Awakening and Breathing Coordination, Delirium monitoring/management, and Early exercise/mobility.
[a]Defined as an extubation documented to be done by patient.
[b]For all patients included in study: pre ($n = 146$) and post ($n = 150$).

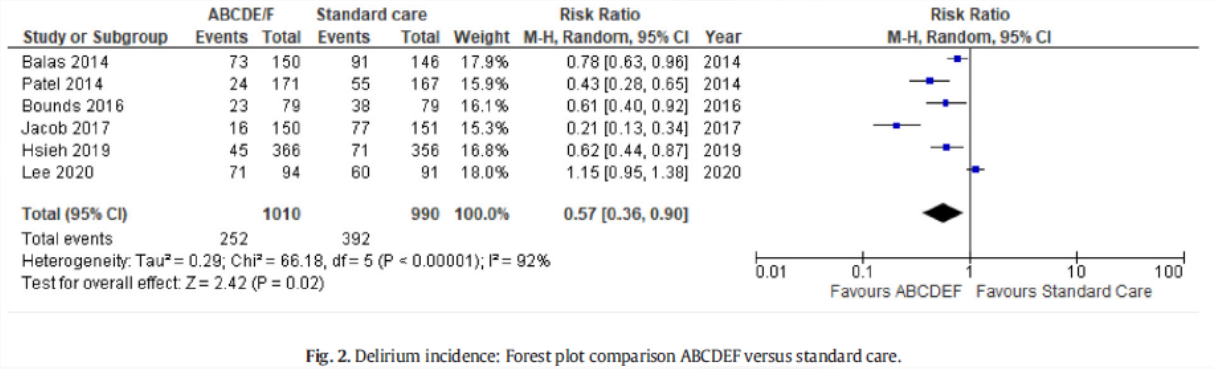
TABLE 1. Awakening and Breathing Coordination, Delirium Monitoring/Management, and Early Exercise/Mobility Bundle Safety Screen Questions and Success/Fail Criteria

Awakening and Breathing Coordination, Delirium Monitoring/ Management, and Early Exercise/Mobility Bundle Component	Safety Screen Criteria–Conditions for Exclusion	Pass/Fail Criteria–Conditions Denoting Failure
Spontaneous awakening trial	1) Active seizures 2) Alcohol withdrawal 3) Neuromuscular blockade 4) Control of increased ICP 5) ICP > 20 mm Hg 6) Receiving ECMO 7) Documentation of MI in past 24 hr 8) Current RASS > 2	1) RASS score > 2 for ≥ 5 min 2) Pulse oximetry reading < 88% for ≥ 5 min 3) Respirations > 35 breaths/min for ≥ 5 min 4) Acute cardiac arrhythmia 5) ICP > 20 mm Hg 6) Two or more of the following: heart rate increase ≥ 20 BPM, heart rate < 55 BPM, use of accessory muscles, abdominal paradox, diaphoresis, or dyspnea
Spontaneous breathing trial	1) Chronic ventilator dependence 2) Pulse oximetry reading < 88% 3) Fio_2 > 50% 4) Set PEEP > 7 5) ICP > 20 mm Hg 6) Receiving mechanical ventilation in an attempt to control ICP 7) Documentation of MI in past 24 hr 8) Increasing doses of vasopressor medications 9) Lack of inspiratory effort	1) Respiratory rate > 35 breaths/min for ≥ 5 min 2) Respiratory rate < 8 3) Pulse oximetry reading < 88% > 5 min 4) ICP > 20 mm Hg 5) Mental status changes 6) Acute cardiac arrhythmia 5) Two or more of the following: use of accessory muscles, abdominal paradox, diaphoresis, and dyspnea
Early exercise/ mobility	1) RASS < −3 2) Fio_2 > 0.6 3) Set PEEP > 10 cm H_2O 4) Increasing doses of vasopressor infusions in the last 2 hr 5) Evidence of active MI 6) Administration of a new antiarrhythmic agent 7) Receiving therapies that restricted mobility (e.g., ECMO and open abdomen) 8) Injuries in which mobility is contraindicated (e.g., unstable fractures)	1) Symptomatic drop in mean arterial pressure 2) Heart rate < 50 or > 130 BPM ≥ 5 min 3) Respiratory rate < 5 or > 40 breaths/min ≥ 5 min 4) Systolic blood pressure > 180 mm Hg ≥ 5 min 5) Pulse oximetry reading < 88% ≥ 5 min 6) Marked ventilator dyssynchrony 7) Patient distress 8) New arrhythmia or evidence of active MI 9) Concern for airway device integrity or endotracheal removal 10) Fall to knees

RASS = Richmond Agitation-Sedation Scale, ICP = intracranial pressure, ECMO = extracorporeal membrane oxygenation, BPM = beats per minute, MI = myocardial ischemia, PEEP = positive end-expiratory pressure.

The effect of the ABCDE/ABCDEF bundle on delirium, functional outcomes, and quality of life in critically ill patients: A systematic review and meta-analysis

Kellie Sosnowski [a,b,c,*], Frances Lin [d], Wendy Chaboyer [a,c,e], Kristen Ranse [a], Aaron Heffernan [b,f,g], Marion Mitchell [a,c]

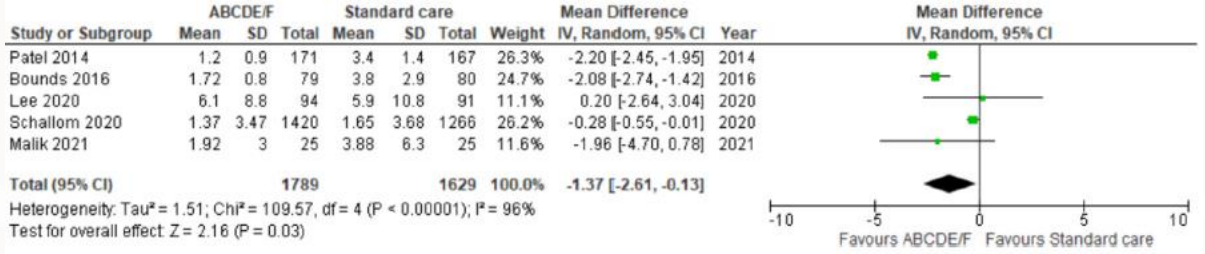


Study or Subgroup	ABCDE/F Events	ABCDE/F Total	Standard care Events	Standard care Total	Weight	Risk Ratio M-H, Random, 95% CI	Year
Balas 2014	73	150	91	146	17.9%	0.78 [0.63, 0.96]	2014
Patel 2014	24	171	55	167	15.9%	0.43 [0.28, 0.65]	2014
Bounds 2016	23	79	38	79	16.1%	0.61 [0.40, 0.92]	2016
Jacob 2017	16	150	77	151	15.3%	0.21 [0.13, 0.34]	2017
Hsieh 2019	45	366	71	356	16.8%	0.62 [0.44, 0.87]	2019
Lee 2020	71	94	60	91	18.0%	1.15 [0.95, 1.38]	2020
Total (95% CI)		**1010**		**990**	**100.0%**	**0.57 [0.36, 0.90]**	
Total events	252		392				

Heterogeneity: Tau² = 0.29; Chi² = 66.18, df = 5 (P < 0.00001); I² = 92%
Test for overall effect: Z = 2.42 (P = 0.02)

Risk Ratio M-H, Random, 95% CI
0.01 0.1 1 10 100
Favours ABCDEF Favours Standard Care

Fig. 2. Delirium incidence: Forest plot comparison ABCDEF versus standard care.



Study or Subgroup	ABCDE/F Mean	ABCDE/F SD	ABCDE/F Total	Standard care Mean	Standard care SD	Standard care Total	Weight	Mean Difference IV, Random, 95% CI	Year
Patel 2014	1.2	0.9	171	3.4	1.4	167	26.3%	-2.20 [-2.45, -1.95]	2014
Bounds 2016	1.72	0.8	79	3.8	2.9	80	24.7%	-2.08 [-2.74, -1.42]	2016
Lee 2020	6.1	8.8	94	5.9	10.8	91	11.1%	0.20 [-2.64, 3.04]	2020
Schallom 2020	1.37	3.47	1420	1.65	3.68	1266	26.2%	-0.28 [-0.55, -0.01]	2020
Malik 2021	1.92	3	25	3.88	6.3	25	11.6%	-1.96 [-4.70, 0.78]	2021
Total (95% CI)			**1789**			**1629**	**100.0%**	**-1.37 [-2.61, -0.13]**	

Heterogeneity: Tau² = 1.51; Chi² = 109.57, df = 4 (P < 0.00001); I² = 96%
Test for overall effect: Z = 2.16 (P = 0.03)

Mean Difference IV, Random, 95% CI
-10 -5 0 5 10
Favours ABCDE/F Favours Standard care

Fig. 3. Delirium duration: Forest plot comparison ABCDEF versus standard care.

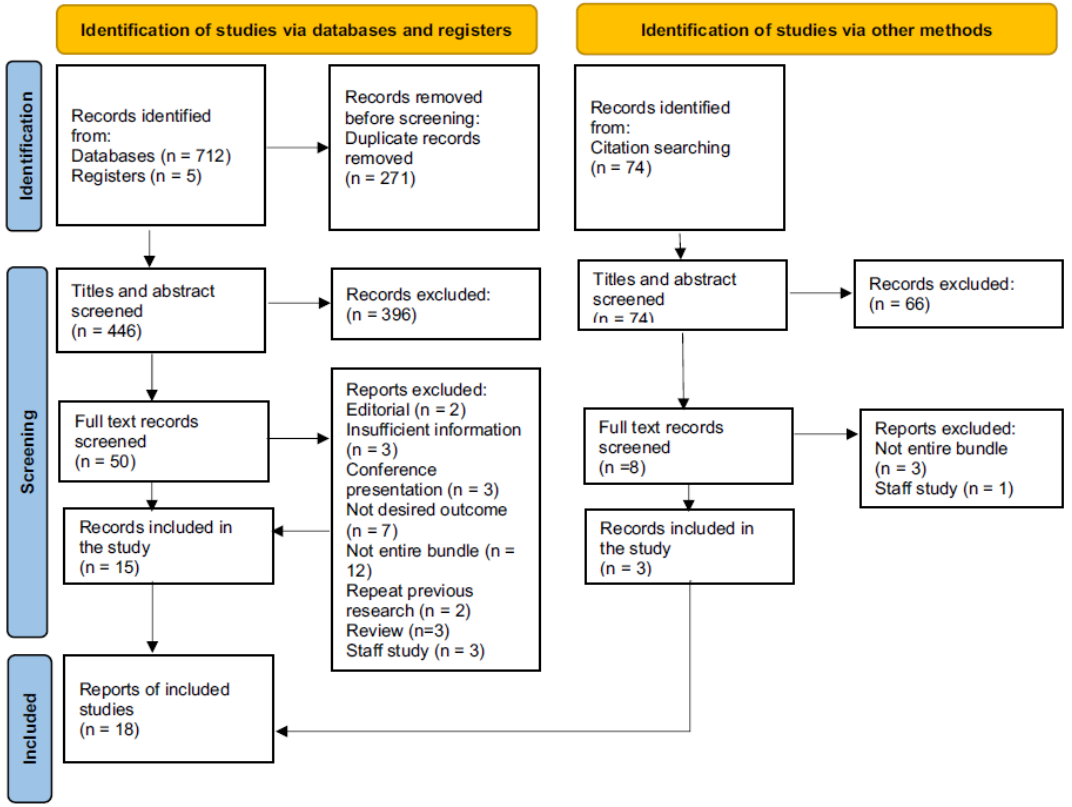


Fig. 1. Prisma 2020 Flow Diagram for the ABCDE/F bundle effect of delirium, functional outcomes, and quality of life in adult ICU patients.

Facilitateurs et barrières

Table 2
Facilitators and barriers to bundle implementation.

Facilitators	Description
Patient related facilitators	Family engagement and involvement (Sosnowski et al., 2018)
Clinician related facilitators	Collaboration between members of the interdisciplinary team (Balas et al., 2014; Barnes-Daly et al., 2017; Bounds et al., 2016; Hsieh et al., 2019; Kram et al., 2015; Lee et al., 2020; Patel et al., 2014; Pun et al., 2019; Schallom et al., 2020; Sosnowski et al., 2018; Loffink et al., 2018; Zheng et al., 2016)
	Expertise within the interdisciplinary team (Kram et al., 2015)
	Dedicated ABCDEF interdisciplinary team to champion bundle compliance (Barnes-Daly et al., 2017; Pun et al., 2019)
	Unit champions to support education, serve as a resource, and assist to overcome barriers (Patel et al., 2014)
	Simulation training and skill development (Sosnowski et al., 2018)
	Multimodal interdisciplinary education, practice to embed skill and knowledge, collaboration, and shared decision making (Barnes-Daly et al., 2017; Bounds et al., 2016; Kram et al., 2015; Patel et al., 2014; Sosnowski et al., 2018; Jacob, 2017)
Protocol related facilitators	Discussion of the bundle during interdisciplinary teaching round (Barnes-Daly et al., 2017; Bounds et al., 2016; Patel et al., 2014; Loffink et al., 2018; Zheng et al., 2016)
	Nurse led implementation (Negro et al., 2018; Loffink et al., 2018)
	Physician led implementation (Malik et al., 2021)
	Early introduction of the E component (within 24 h of admission) (Hsieh et al., 2019)
	Adjusting existing policies and procedures (Kram et al., 2015)
	Focus on non-pharmacological management of delirium (Bounds et al., 2016; Patel et al., 2014)
	Interdisciplinary mobility protocol with prescribed roles and responsibilities (Hsieh et al., 2019)
Intensive care unit facilitators	Encouraging bed-side nurses to engage in the multidisciplinary round (Loffink et al., 2018)
	Dedicated rehabilitation staff (Barnes-Daly et al., 2017)
	Mobilisation was more likely to occur when other components of the bundle were performed (Schallom et al., 2020; Cape et al., 2018)
	Organisational support from key stakeholders (Kram et al., 2015)
	Organisational support to change existing policies and procedures (Kram et al., 2015)
	Clinical information system (Sosnowski et al., 2018)
	Dedicated physiotherapist to foster collaboration and improve outcomes (Negro et al., 2018; Schallom et al., 2020)
Barriers	**Description**
Patient related barriers	Medical issues including haemodynamic or respiratory instability (Lee et al., 2020; Schallom et al., 2020; Sosnowski et al., 2018)
	Procedure or tests (Schallom et al., 2020; Sosnowski et al., 2018)
	Patient fatigue or patient sleeping (Schallom et al., 2020; Sosnowski et al., 2018)
	Agitation or delirium (Sosnowski et al., 2018; Cape et al., 2018)
	Deep sedation (Cape et al., 2018) (Sosnowski et al., 2018; Cape et al., 2018)
	Patient refusal (Schallom et al., 2020)
	Lack of glasses, hearing aids (DiSabatino and Grami, 2016)
	Patient receiving dialysis (Sosnowski et al., 2018)
Clinician related barriers	Lack of knowledge (Lee et al., 2020)
	Staff communication issues (Lee et al., 2020)
	Negative attitude (Lee et al., 2020)
Intensive care unit related barriers	Lack of equipment (DiSabatino and Grami, 2016; Schallom et al., 2020)
	Nurse staffing resource issues (Lee et al., 2020; Negro et al., 2018; Schallom et al., 2020)
	Lack of dedicated physiotherapist and team for mobilisation (DiSabatino and Grami, 2016; Negro et al., 2018; Schallom et al., 2020)
	Lack of allied health team (Balas et al., 2014; DiSabatino and Grami, 2016; Negro et al., 2018; Schallom et al., 2020)
	Light and noise (DiSabatino and Grami, 2016)
	Limited time (Lee et al., 2020)

En conclusion

- Attention aux conclusions des études sur la mobilisation précoce
  - Temps de réhabilitation?
  - Effets indésirables?
- Patients cibles
  - VM?
  - Sepsis?
  - Sédation?
- ABCDEF
  - Diminuer la sédation/Evaluation du délirium
  - Sevrage rapide
  - Mobilisation quotidienne
  - Intégration des familles?