Ne pas sortir le patient du lit

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srlf SOCIÉTÉ DE RÉANIMATION DE LANGUE FRANÇAISE

TOUS ENSEMBLE SOINS PROGRÈS BIENVEILLANCE COMPÉTENCES HUMANITÉ NOUS SOMMES LA RÉANIMATION

ERPHAN Équipe de recherche paramédicale sur le handicap neuromoteur

UVSQ université PARIS-SACLAY

SKR Société de Kinésithérapie de Réanimation

AUCUN CONFLIT D'INTERÊT

Sondage auprès de l'équipe de MIR : « On sort le patient du lit ?»

1. IDE : « J'ai pas fini mon tour de 8h »
2. AS : « Le kiné est pas là et on veut pas se faire mal au dos ! »
3. TEAM: « C'est l'heure des transmissions »
4. TEAM: « Il a eu un grand lavement tu es sûr de vouloir le sortir du lit? »
5. AS : « Le patient sonne au bout de 10 minutes pour retourner au lit »
6. IDE : « Le patient est dialysé et les pressions sont limites »
7. IDE : « Il a une tension limite sous v40 de NAD »
8. TEAM : « On pas des lits qui font lit-fauteuil ? »
9. MD : « Attend je ne l'ai pas examiné » (il est 11h30 quand même)

…

Cas n°1

Patient de 86 ans admis pour un ACR-EH, avec 40 minutes de LF, hospitalisé depuis 15 jours.

Aujourd'hui G12, IMC = 24 $cm.kg^{-2}$, Dobutamine v8, NAD > 0,5 u/kg/min

MRC = 12/60

FC = 89, TA = 100/65 (73), SpO2 = 97% en VSAI 30%, PEP= 8, Aide = 14

Qui le sort du lit?

Cas n°2

Patiente de 38 ans, hospitalisée depuis 3 semaines pour un SDRA, 5 séances de DV, curarisée 10 jours

Aujourd'hui en VSAI 70%, PEP=10, Aide = 12

MRC = 55/60, IMC = 82 $kg.m^{-2}$, ne marchait plus à son domicile depuis 2 ans.

Escarre sacrée de stade 3

Qui la sort du lit?

Réanimation (2013) 22:207-218
DOI 10.1007/s13546-013-0658-y

RECOMMANDATIONS / *RECOMMENDATIONS*

Prise en charge de la mobilisation précoce en réanimation, chez l'adulte et l'enfant (électrostimulation incluse)

Management of early mobilisation (including electrostimulation) in adult and pediatric patients in the intensive care unit

Recommandations formalisées d'experts

Sous l'égide de la Société de réanimation de langue française (SRLF)
Avec la participation de la Société de kinésithérapie de réanimation (SKR), de la Société française de médecine physique et réadaptation (SOFMER), du Groupe francophone de réanimation et urgences pédiatriques (GFRUP).

J. Roeseler · T. Sottiaux · V. Lemiale · M. Lesny, pour le groupe d'experts

1. Des contre-indications ?

1. Des contre-indications ?

Tableau 3. Contre-indications aux techniques de mobilisation active

Techniques de mobilisation	Contre-indications
Mobilisation globale (mobilisation active assistée et active) Travail actif contre résistance (par exemple poids, élastique, manuel, *leg press*) Mobilisation active sur cycloergomètre des membres supérieurs et/ou inférieurs Travail fonctionnel (équilibre assis/debout, transfert et déambulation)	Cardiovasculaires Respiratoires Neurologiques Orthopédiques Dermatologiques Agitation
Électrostimulation (ESM) sur patient actif	Orthopédiques Dermatologiques Autres : stimulateur cardiaque, grossesse, infection locale empêchant l'ESM

Définitions des contre-indications à la mobilisation retrouvées dans la littérature

Cardiovasculaires **:** pression artérielle moyenne < 65 mmHg ou > 120 mmHg, pression artérielle systolique < 90 mmHg ou > 200 mmHg, fréquence cardiaque < 50 ou > 130/min, arythmie aiguë significative, pathologie cardiaque majeure et traitement vasopresseur à dose élevée ou récemment introduit.

Respiratoires **:** PaO_2/FIO_2 < 250 mmHg, SpO_2 < 90 %, FiO_2 > 60 %, PEEP ≥ 10 cmH_2O, fréquence respiratoire mesurée > 35/minute et signes cliniques de détresse respiratoire.

Neurologiques **:** pression intracrânienne > 20 mmHg.

Orthopédiques *:* fracture instable, suspicion de fracture, lésion médullaire non fixée, utilisation d'une technique ne permettant pas de respecter les consignes chirurgicales postopératoires (amplitude articulaire, décharge…), thrombose veineuse profonde du membre concerné non traitée.

Dermatologiques *:* lésions sévères ou pansements complexes au niveau du secteur concerné.

2. Des freins ?

Barriers and Strategies for Early Mobilization of Patients in Intensive Care Units

Rolf Dubb[1]*, Peter Nydahl[2]*, Carsten Hermes[3], Norbert Schwabbauer[4], Amy Toonstra[5], Ann M. Parker[6], Arnold Kaltwasser[1], and Dale M. Needham[7]

2. Des freins ?

Table 1. Patient-related barriers to early mobilization

Barriers
Physical barriers
High severity of illness, patients "too sick" or "too well"
Hemodynamic instability, arrhythmias
Respiratory instability/distress, ventilator asynchrony
Pain
Poor nutritional status
Obesity (e.g., BMI ⩾30)
Baseline or new immobility/weakness
Neuropsychological barriers
Deep sedation and/or paralysis
Delirium, agitation
Patient refusal, lack of motivation, anxiety
Fatigue, need for rest, sleepiness
Palliative care
ICU devices and equipment
Hemodynamic monitoring equipment
ICU-related devices

Patient-related barriers were reported by 31 (77%) of the relevant studies and included 14 unique barriers and physical, neuropsychological, and ICU devices and equipment barriers. The most common patient-related barrier was hemodynamic instability ($n = 20$, 50% of studies), followed by vascular access devices, tubes, and drains ($n = 18$, 45%). Other patient-

Barriers and Strategies for Early Mobilization of Patients in Intensive Care Units

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2. Des freins ?

Table 2. Structural barriers to early mobilization

Structural Barriers
Limited staff, time constraints
Lack of early mobility program/protocol (e.g., no routine delivery of PT), too many existing protocols, limited guidelines, no eligibility criteria
Inadequate staff training
Limited equipment
Early discharge (before mobilization)

Structural barriers were reported by 28 (70%) studies and included limited staff in 18 (45%) studies, lack of an organized program for early mobility in 14 (35%) studies, and inadequate staff training in 10 (25%) studies (Table 2).

3. Le lit-fauteuil ?

Réanimation (2013) 22:207-218
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3. Le lit-fauteuil ?

"Il faut probablement envisager précocement le transfert passif puis actif en position assise au fauteuil (ou lit position fauteuil)"

Merci beaucoup

chu Orléans

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UVSQ université PARIS-SACLAY

SKR
Société de Kinésithérapie de Réanimation

Et sinon un vrai niveau de preuve ?

Research

JAMA | Preliminary Communication

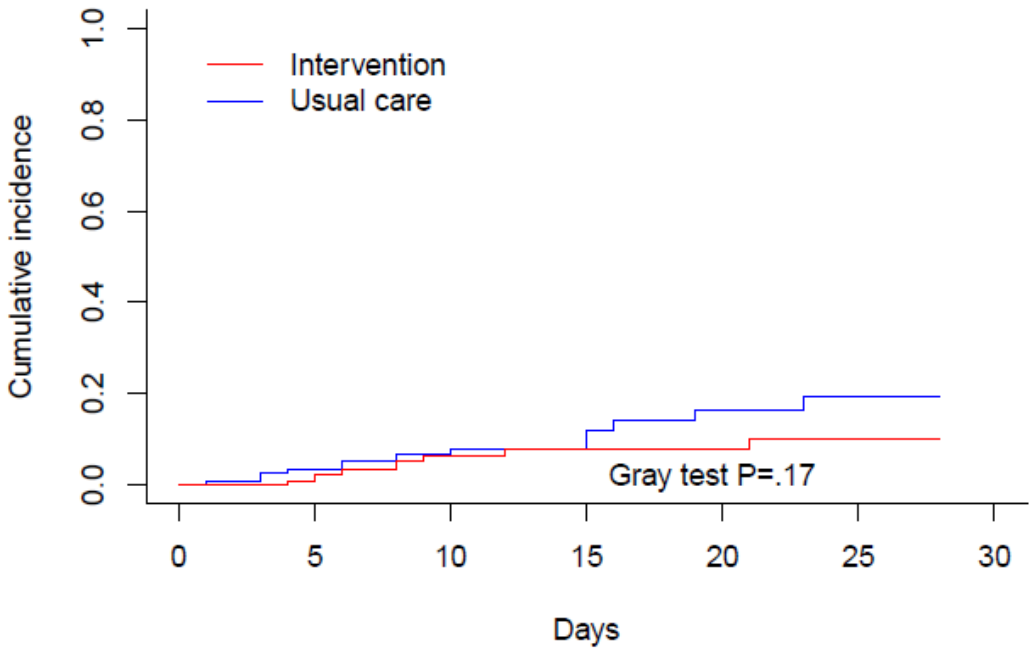
Effect of In-Bed Leg Cycling and Electrical Stimulation of the Quadriceps on Global Muscle Strength in Critically Ill Adults
A Randomized Clinical Trial

Guillaume Fossat, PT; Florian Baudin, PT; Léa Courtes, PT; Sabrine Bobet, PT; Arnaud Dupont, PT; Anne Bretagnol, MD; Dalila Benzekri-Lefèvre, MD; Toufik Kamel, MD; Grégoire Muller, MD; Nicolas Bercault, MD; François Barbier, MD, PhD; Isabelle Runge, MD; Mai-Anh Nay, MD; Marie Skarzynski, MD; Armelle Mathonnet, MD; Thierry Boulain, MD

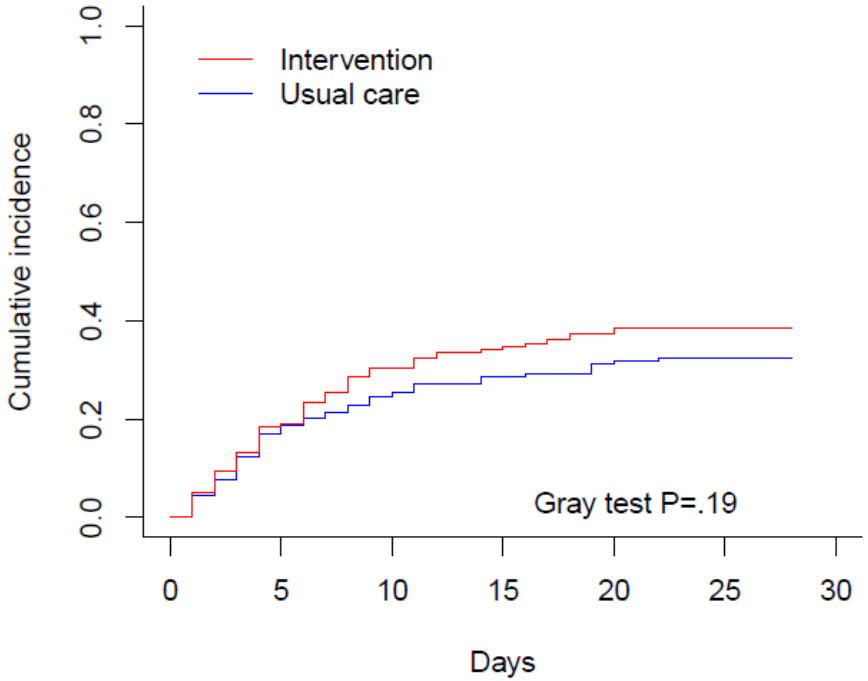
eTable1. Mobilization actions applied, and level of wakefulness and of muscle strength during the first 3 days, according to the randomization group

	Day 1		Day 2		Day 3	
	Usual care 154	Intervention 158	Usual care 154	Intervention 158	Usual care 154	Intervention 158
Muscle strength not assessed by physiotherapy team (because of weekend)	9	7	27	34	36	50
Muscle strength assessment						
Unresponsiveness (Muscle strength non assessable because patient did not obey commands)	99	115	86	88	72	82
MRC score[a] <29	6	3	1	3	8	2
MRC score 29 to 46	17	14	17	14	18	23
MRC score >46	23	19	23	19	31	21
Mobilization actions						
Range of motion	**110**	**118**	**120**	**119**	**103**	**115**
Passive range of motion	71	74	53	69	53	69
Passive/active range of motion	16	13	29	21	18	21
Active range of motion	23	18	38	29	32	25
Passive verticalization on tilt table	**0**	**0**	**0**	**0**	**0**	**0**
Passive/active verticalization	**0**	**0**	**0**	**1**	**1**	**0**
Transfer on the edge of bed or to chair	**61**	**39**	**77**	**58**	**69**	**68**
Transfer on the edge of bed	25	18	36	28	34	38
Transfer to chair	36	21	41	30	35	30
Exercises while on the edge of bed	**11**	**10**	**12**	**11**	**11**	**12**
Walking	**2**	**1**	**1**	**0**	**4**	**0**
Electrical muscle stimulation (atrophy prevention program)	-	72	-	64		49
Electrical muscle stimulation (muscle building program)	-	29	-	40		46
Passive in-bed leg cycling	-	75		67		54
Passive/active in-bed leg cycling	-	16		22		25
Fully active in-bed leg cycling	-	9	-	13	-	16

eFigure 4. Cumulative incidence of walking adjusted for stratification and for initial SAPS II



eFigure 3. Cumulative incidence of standing adjusted for stratification and for initial SAPS II



eTable 2. Count of adverse events in both groups

	Number of adverse events and interrupted sessions (% of sessions)		Number of patients experiencing at least one adverse event (%)	
Adverse events leading to temporary interruption and/or postponing of mobilization session	Usual care group 1190 sessions	Intervention Group 4159 sessions	Usual care group 154 patients	Intervention Group 158 patients
Occurrence of mean arterial pressure < 65 mmHg *Including episodes leading to vasopressor dosage increase above 0.5µg kg min*	13 (1.1%) 9 (0.8%)	4 (0.1%) 4 (0.1%)	9 (5.8%) 6 (3.9%)	4 (2.5%) 3 (1.9%)
Occurrence of systolic arterial pressure >180 mmHg	1 (0.1%)	2 (0.0%)	1 (0.6%)	2 (1.3%)
Occurrence of heart rate >135 b./min	7 (0.6%	5 (0.1%)	6 (3.9%)	4 (2.5%)
Occurrence of heart rate <45 b./min	1 (0.1%)	1 (0.0%)	1 (0.6%)	1 (0.6%)
Occurrence of acute arrhythmia *Including persistent arrhythmia with need of drug therapy*	5 (0.4%) 2 (0.2%)	4 (0.1%) 2 (0.0%)	3 (1.9%) 2 (1.3%)	4 (2.5%) 2 (1;3%)
Myocardial ischemia	0	0	0	0
Increase in respiratory rate above 36 b./min or by 50%	10 (0.8%)	3 (0.1%)	5 (3.2%)	2 (1.3%)
Drop in SpO2	12 (1.0%)	4 (0.1%)	10 (6.5%)	4 (2.5)
Unplanned extubation *Including need of immediate reintubation*	0 0	1 (0.0%) 1 (0.0%)	0 0	1 (0.6%) 1 (0.6%)
Muscle fatigue	8 (0.7%)	21 (0.5%)	7 (4.5%)	17 (10.8%)
Pain	10 (0.8%)	23 (0.6%)	6 (3.9%)	8 (5.1%)
Agitation	12 (1.0%)	23 (0.6%)	8 (5.2%)	12 (7.6%)
Acute dyspnea and/or respiratory distress *Including acute pulmonary edema with need of intensification of oxygen/ventilatory therapy beyond transient increase in oxygen flow in patients breathing spontaneously*	13 (1.1%) 1 (0.1%)	16 (0.4%) 1 (0.0%)	10 (6.5%) 1 (0.6%)	14 (8.9%) 1 (0.6%)
Adverse events that occurred during standardized mobilization program session	92/1190 (7.7%)	51/1387 (3.7%)	51 (33.1%)	31 (19.6%)
Adverse events that occurred during electrical muscle stimulation	-	8/1385 (0.6%)	-	2 (1.3%)
Adverse events that occurred during leg cycling exercises	-	47/1387 (3.5%)	-	30 (19.0%)
All adverse events	92/1190 (7.7%)	106/4159 (2.6%)	51 (33.1%)	50 (31.6%)

JAMA Network

Can early in-bed leg cycling and electrical stimulation of the quadriceps muscles improve muscle function in critically ill adults?

CONCLUSION Early in-bed cycling and electrical stimulation of the quadriceps muscles did not improve muscle strength in critically ill patients

POPULATION

201 Men 111 Women

Patients likely to remain in the ICU for >48 hours and who could ambulate before their ICU admission

Mean age: 66 years

LOCATIONS

1
Single center in France

INTERVENTION

314 Patients randomized
(312 analyzed because 2 patients withdrew consent)

158
Early in-bed cycling
daily 15-minute session
Electrical stimulation
of the quadriceps muscles
In addition to standardized early rehabilitation

154
Standardized early rehabilitation

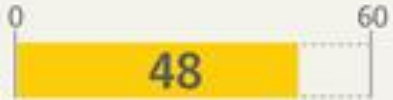
PRIMARY OUTCOME

Muscle strength at ICU discharge on a scale of 0-60
(a higher score reflects better strength)

FINDINGS

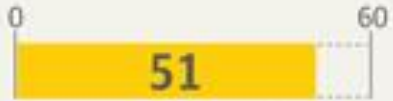
Muscle strength at ICU discharge (0-60)

Early in-bed cycling, electrical stimulation, and standardized early rehabilitation



(Interquartile range, 29 to 58)

Standardized early rehabilitation



(Interquartile range, 37 to 58)

Median difference between groups:

-3.0

(95% CI, -7.0 to 2.8)

Fossat G, Baudin F, Courtes L, et al. Effect of in-bed leg cycling and electrical stimulation of the quadriceps on global muscle strength in critically ill adults: a randomized clinical trial [published July 24, 2018]. *JAMA*. doi:10.1001/jama.2018.9592

6. Les études sur la mobilisation précoce

TEAM Study NEJM 2022

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

Table 1. Characteristics of the Patients at Baseline.*

Characteristic	Early Mobilization (N=371)	Usual Care (N=370)
Age — yr	60.5±14.8	59.5±15.2
Female sex — no. (%)	128 (34.5)	146 (39.5)
Body-mass index†	29.9±7.9	30.4±7.8
Frailty and function		
Median score on Clinical Frailty Scale (IQR)‡	3 (2 to 4)	3 (2 to 4)
Median score on Functional Comorbidity Index (IQR)§	2 (1 to 3)	2 (1 to 3)
Median score on WHODAS 2.0 (IQR)¶	10.4 (2.1 to 25.0)	8.7 (2.1 to 22.7)
Highest score on the ICU Mobility Scale in wk before ICU admission‖	9.9±0.6	9.8±0.7
Median interval from hospital admission to randomization (IQR) — hr	88.3 (50.5 to 137.0)	81.6 (48.2 to 147.0)
Median interval from ICU admission to randomization (IQR) — hr	60.1 (35 to 92.3)	61.3 (33.8 to 96.1)
ICU admission type — no. (%)		
Planned ICU admission after elective surgery	68 (18.3)	58 (15.7)
Unplanned ICU admission	303 (81.7)	312 (84.3)
Median RASS score at randomization (IQR)**	−3 (−4 to −2)	−3 (−4 to −2)
Measurements and interventions at randomization††		
Positive end-expiratory pressure — cm of water	8.9±3.0	8.8±3.1
Pao_2:FIo_2	226±79.1	230±85.2
Receipt of vasopressors by infusion — no. (%)	228 (61.5)	231 (62.4)
Receipt of renal-replacement therapy — no. (%)	82 (22.1)	79 (21.4)
APACHE II score‡‡	18.2±6.8	18±6.9
Diagnosis subgroup — no. (%)§§		
Sepsis¶¶	246 (66.3)	245 (66.2)
Trauma	15 (4.0)	14 (3.8)
Covid-19	7 (1.9)	10 (2.7)

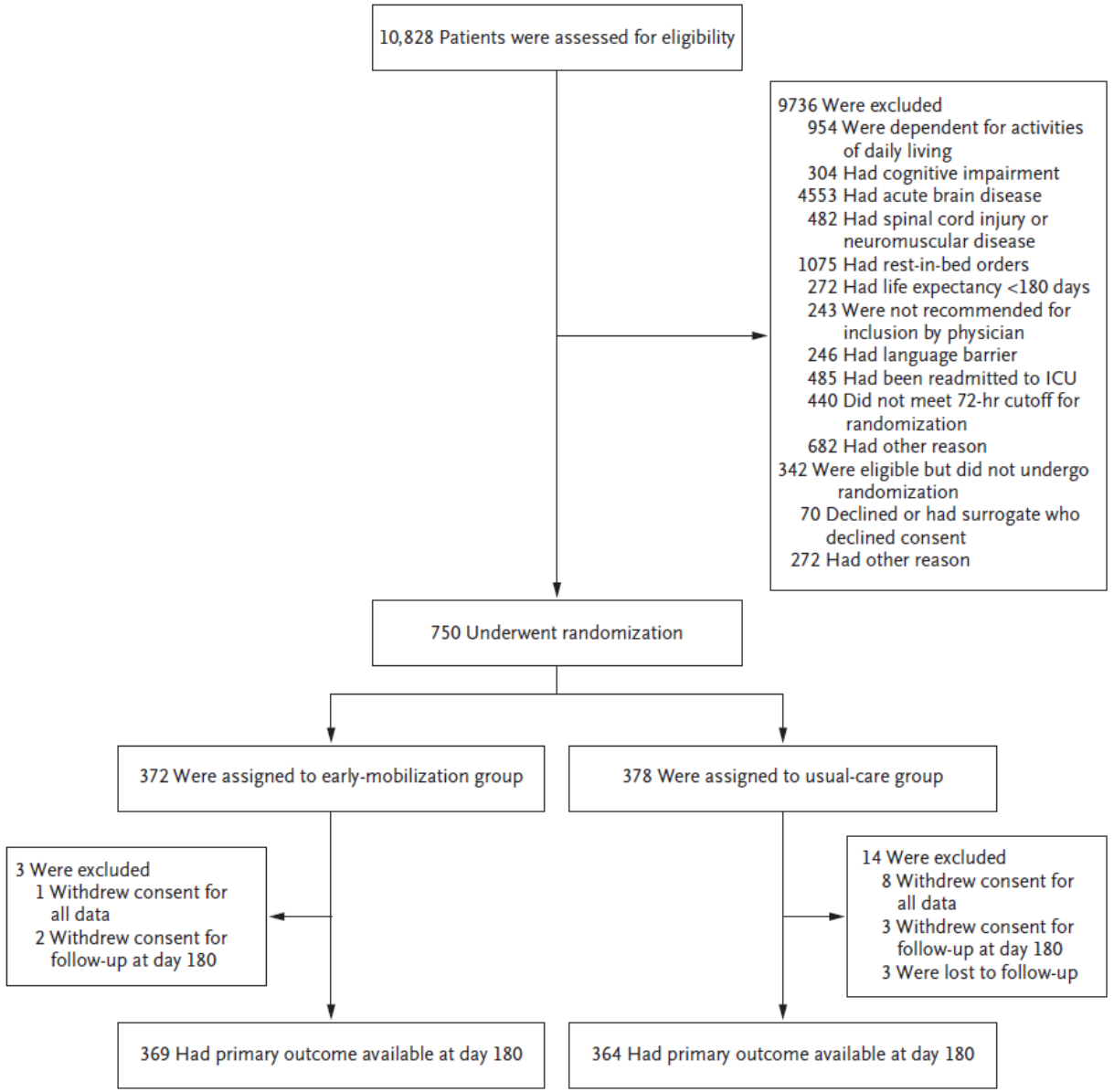


Figure 1. Randomization and Outcomes.

In this trial involving patients who were undergoing invasive mechanical ventilation, early mobilization included sedation minimization and daily physiotherapy and usual care included the level of mobilization that was normally provided in each intensive care unit (ICU).

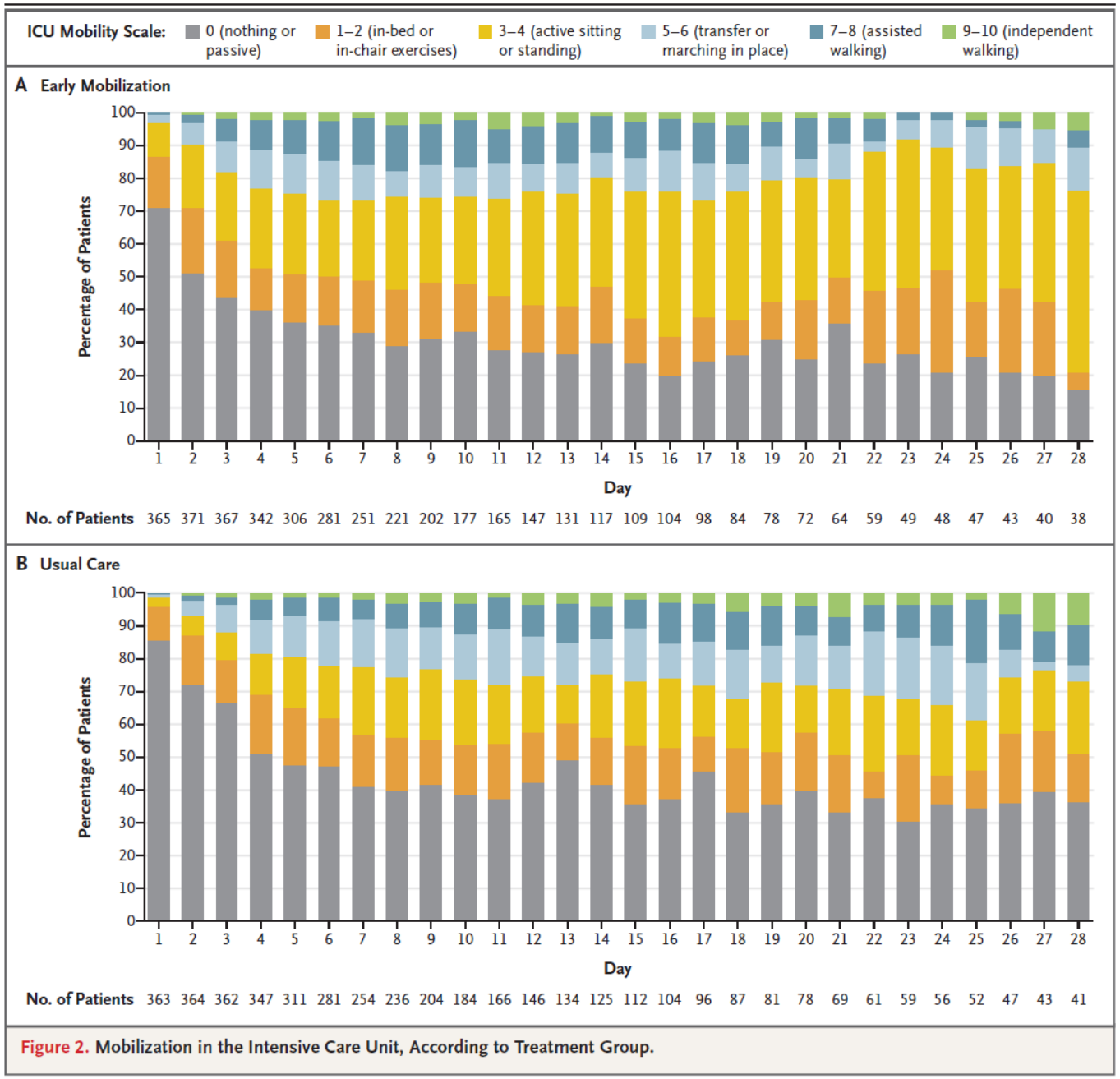


Figure 2. Mobilization in the Intensive Care Unit, According to Treatment Group.

Plus de mobilisation au global

Table 2. Mobilization in the ICU.*

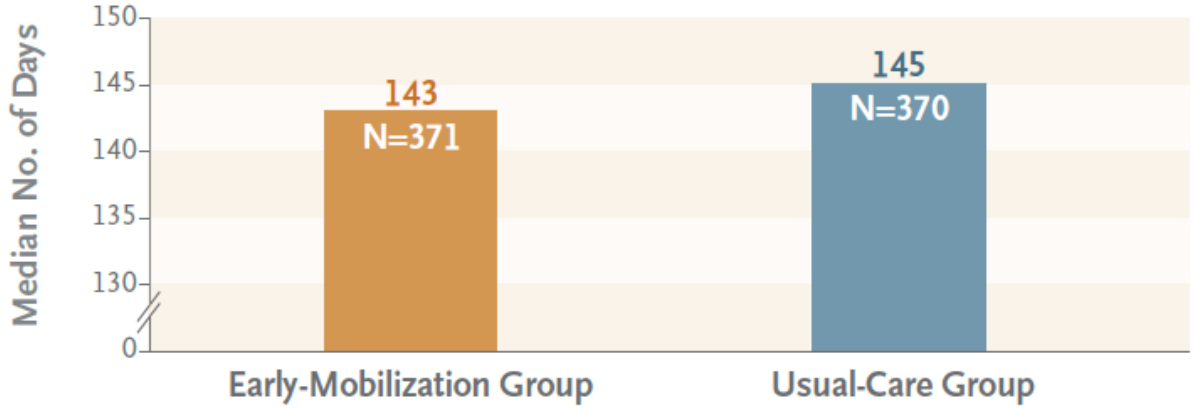
Characteristic	Early Mobilization (N=371)	Usual Care (N=370)	Between-Group Difference (95% CI)†
Patients who were assessed by a physiotherapist on day of randomization — no./total no. (%)	320/370 (86.5)	265/363 (73.0)	13.5 (6.7 to 20.3)
No. of days per patient when physiotherapy assessment occurred	0.94±0.11	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)

1. Sortie du lit
2. Standing
3. Déambulation

} Plus rapides

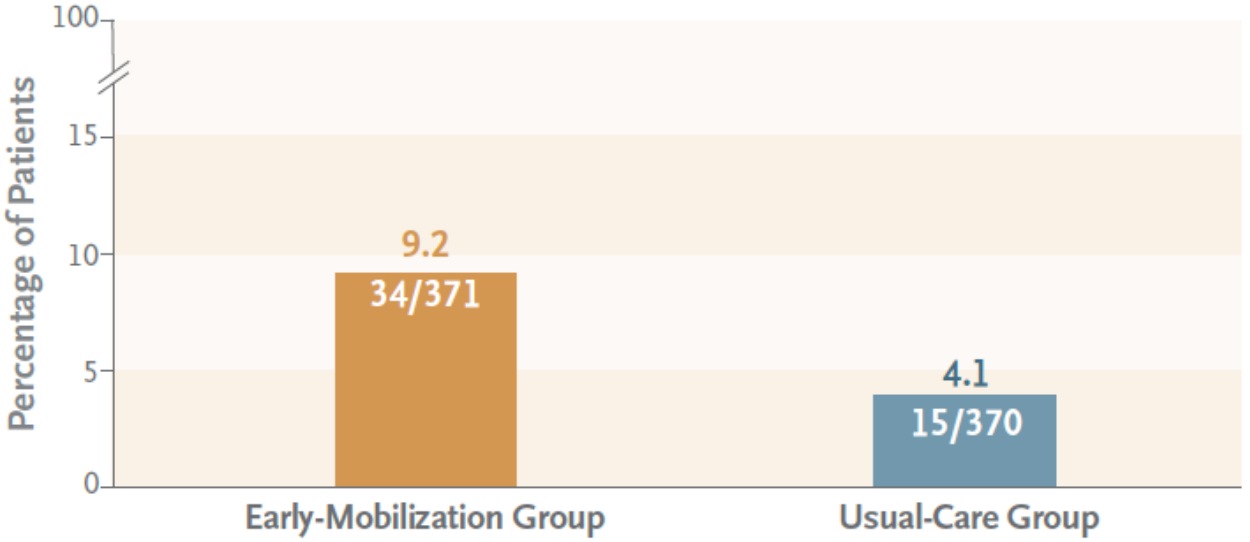
Days Alive and Out of the Hospital at Day 180

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



PATEL Lancet Respir Med 2023

	Usual care group (n=99)	Intervention group (n=99)	p value
At least one AE due to mobilisation	0 (0%)	6 (6%)	0·029
Type of AE			
Tachycardia	0 (0%)	2 (2%)	1·00
Hypotension	0 (0%)	1 (1%)	1·00
Tachypnoea	0 (0%)	1 (1%)	1·00
Oxygen desaturation	0 (0%)	1 (1%)	1·00
Arterial catheter removal	0 (0%)	1 (1%)	1·00
Rectal tube removal	0 (0%)	1 (1%)	1·00

Data are n (%). More than one adverse event (AE) occurs in one patient.

Table 4: **Adverse events**

Table S3: Therapy details for each group

	Usual Care (n=99)		Intervention (n=99)		p-value
Time from intubation to mobility milestone (days)					
Sit at edge of bed	4·8	[3·3-6·8]	1·1	[0·8-2]	<0·001
Standing	5	[3·2-7·3]	1·3	[0·9-2·5]	<0·001
Sit in chair	6	[3·4-8]	2	[1-3·8]	<0·001
Marching in place	5·6	[3·3-7·8]	1·6	[0·9-2·6]	<0·001
Walking	5·6	[3·6-7·5]	1·7	[1-3]	<0·001
Proportion of patients achieving each milestone					
Sit at edge of bed	77	77·8%	97	98·0%	<0·001
Standing	71	71·7%	93	93·9%	<0·001
Sit in chair	64	64·6%	88	88·9%	<0·001
Marching in place	58	58·6%	85	85·9%	<0·001
Walking	62	62·6%	85	85·9%	<0·001

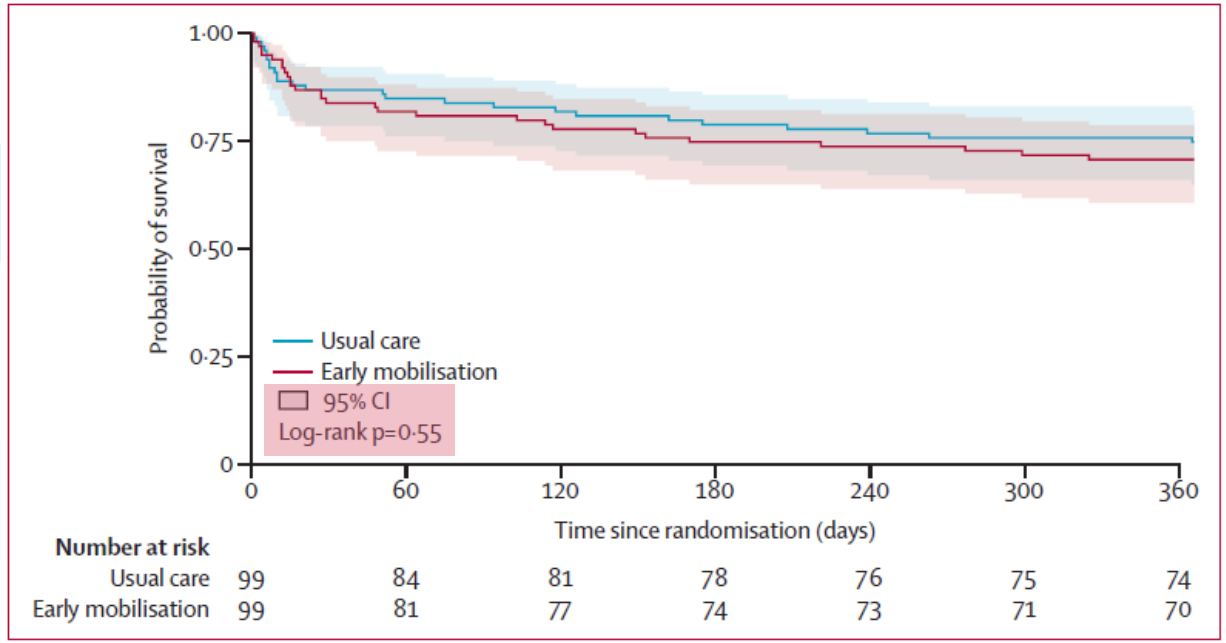


Figure 2: **Kaplan-Meier plot of survival**
Probability of survival from randomisation to 1 year.

ORIGINAL

DEYE ICM 2013

The semi-seated position slightly reduces the effort to breathe during difficult weaning

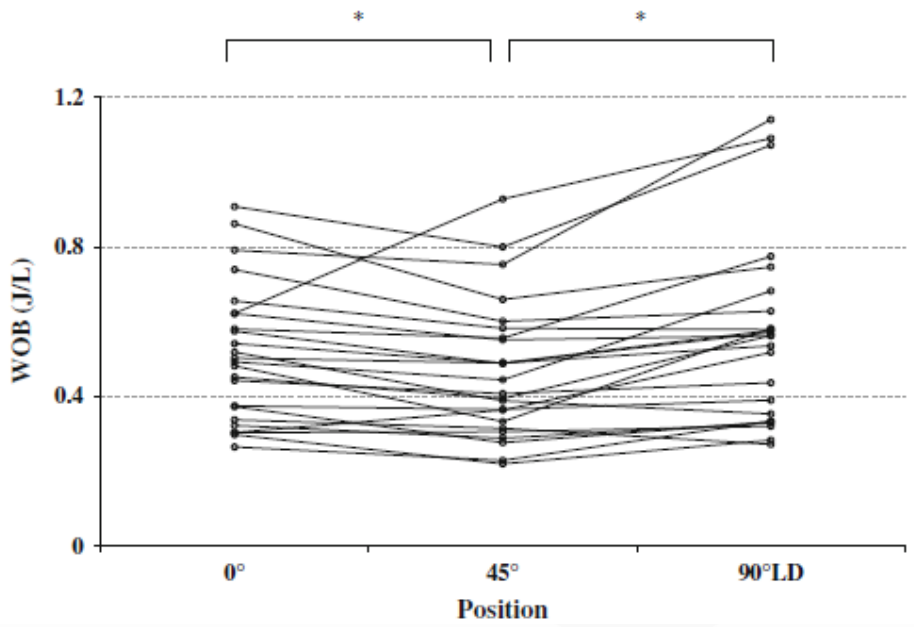
24 difficult to wean patients
Ventilated PS : 5 PEEP, 15 PS, 0,38 FiO2

Three positions were applied during the procedure, in random order using a predefined computer-generated list: the supine position (0°), the semi-seated position (45° backrest elevation), and the seated position in bed with legs down (90°LD), simulating sitting in a chair.

Patients	$n = 24$
Age (years), median [25–75th percentiles]	65 [56–74]
Male/female	16/8
Body mass index (kg/m^2), median [25–75th percentiles]	23 [21–29]
SAPS II, median [25–75th percentiles]	51 [39–67]
Previous COPD, n (%)[a]	8 (25)
Left heart dysfunction, n (%)	7 (29)
Polyneuromyopathy, n (%)[b]	9 (38)
Phrenic disorder, n (%)[c]	6 (25)
Tracheostomy before measurements, n (%)	8 (33)
Duration of ventilation before measurements (days), median [25–75th percentiles]	25 [16–38]
Overall duration of mechanical ventilation (days), median [25–75th percentiles]	43 [28–51]
Duration of hospitalization (days), median [25–75th percentiles]	62 [30–112]
Survival, n (%)	13 (58)

Table 4 Respiratory drive, effort, and intrinsic positive end-expiratory pressure during the three study periods

	0°	45°	90°LD	p
WOB (J/L)	0.50 [0.36–0.62]	0.43 [0.32–0.57]*$	0.56 [0.34–0.66]£	<0.0001
WOB (J/min)	7.5 [3.9–8.2]	5.9 [3.4–8.0]*$	6.7 [3.6–10.2]£	0.003
$PEEP_i$ (cmH_2O)	0.8 [0.4–1.5]	0.5 [0.2–1.4]*	0.5 [0.2–1.1]*	0.0009
W_{PEEPi} (J/L)	0.08 [0.04–0.15]	0.05 [0.02–0.16]*	0.05 [0.02–0.11]*	0.0003
W_{PEEPi} (J/min)	0.8 [0.4–1.7]	0.6 [0.2–2.1]*	0.6 [0.2–1.8]*	0.004
PTPes (cmH_2O s min^{-1})	114 [75–140]	102 [65–124]*$	116 [73–158]£	<0.0001
$P_{0.1}$ (cmH_2O)	1.7 [1.2–2.5]	1.5 [0.9–2.2]$	1.6 [1.0–2.9]£	0.02



Acute Effects of Sitting Out of Bed and Exercise on Lung Aeration and Oxygenation in Critically Ill Subjects

Cheryl E Hickmann, Natalia R Montecinos-Munoz, Diego Castanares-Zapatero, Ricardo S Arriagada-Garrido, Ursula Jeria-Blanco, Timour Gizzatullin, Jean Roeseler, Jonathan Dugernier, Xavier Wittebole, and Pierre-François Laterre

"34 consecutive spontaneously breathing subjects were included, while the records of 11 were excluded for the following reasons:

- **5 subjects were unable to sustain the requested exercise due to exhaustion**
- **1 subject presented with transient hypotension in a sitting position**
- 6 EIT records were dysfunctional, including 1 subject who was unable to sustain the requested exercise"

PaO2/FiO2	Active		p	Control		p
	T1	T4		T1	T4	
	n=40			*n=10*		
Overall	270 (±119)	287 (±112)*	<0.05	284 (±95)	287 (±95)	0.97
	n=23			*n=5*		
Spontaneaous breathing patient	323 (±110)	347 (±87)	0.01	368 (±70)	357(±66)	0.63
	n=17			*n=5*		
Mechanicaly ventilated patient	197 (±91)	203 (±86)	0.28	218 (±44)	230 (±75)	0.81

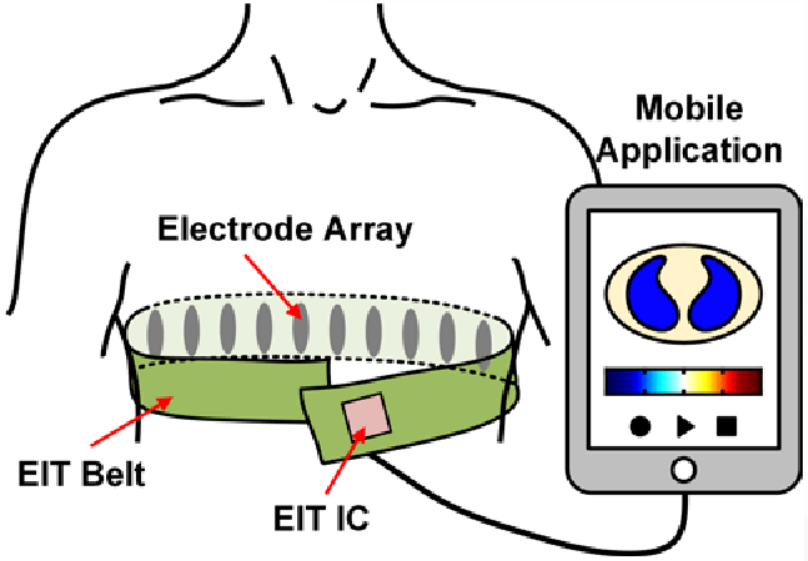


Fig. 1. Proposed wearable lung-health monitoring system.

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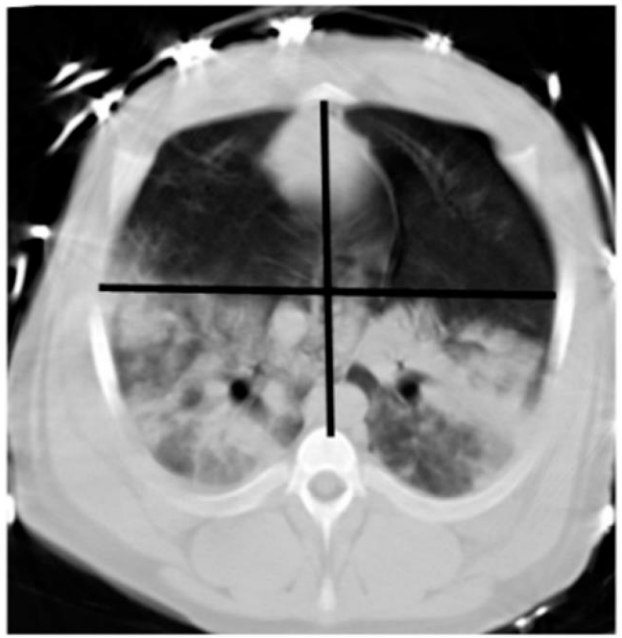

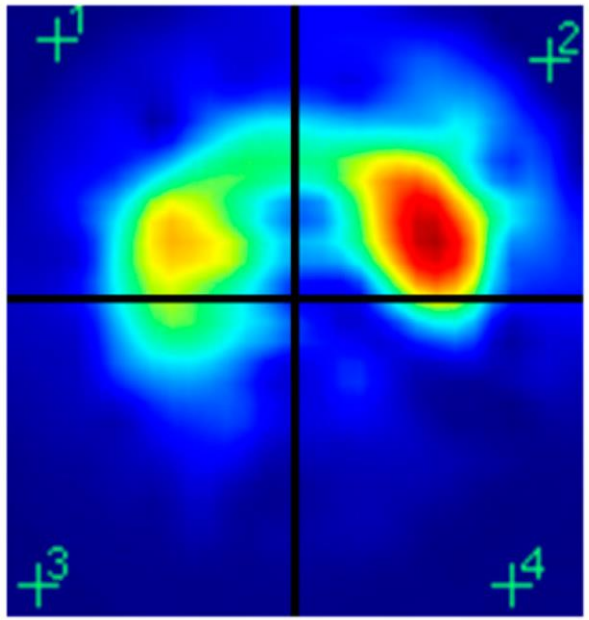

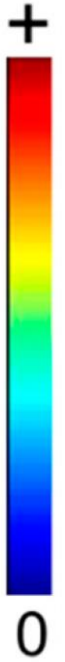

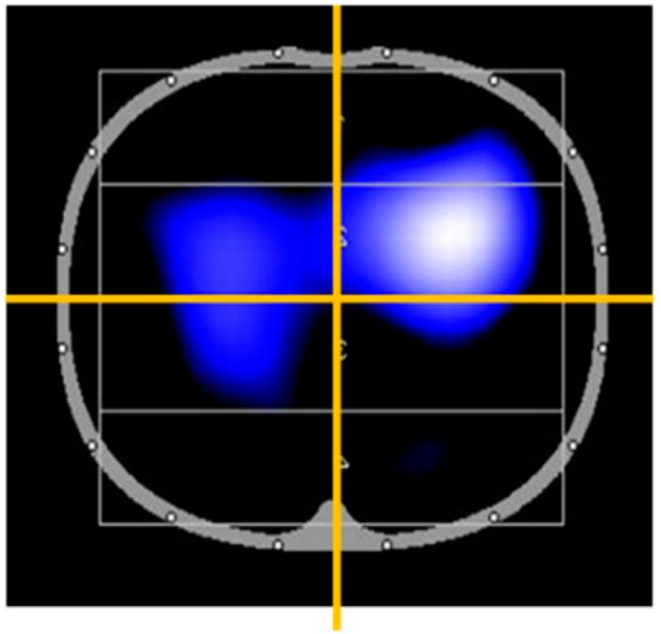

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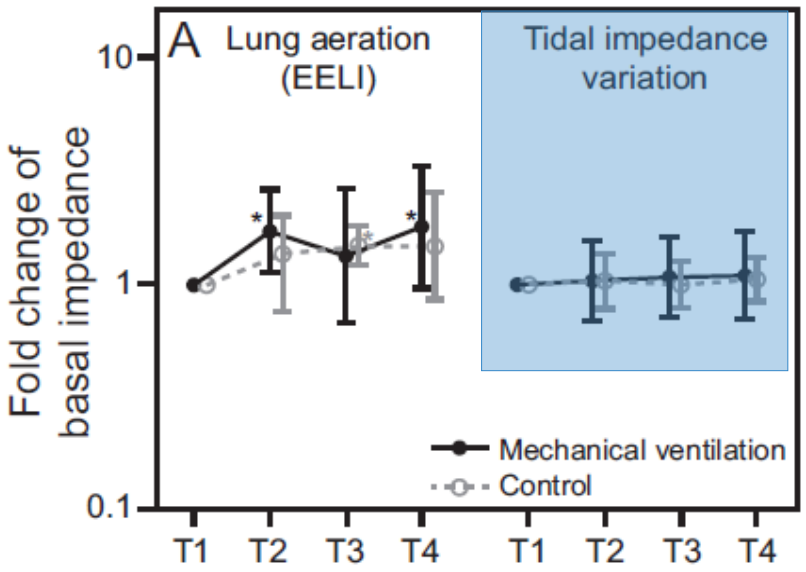
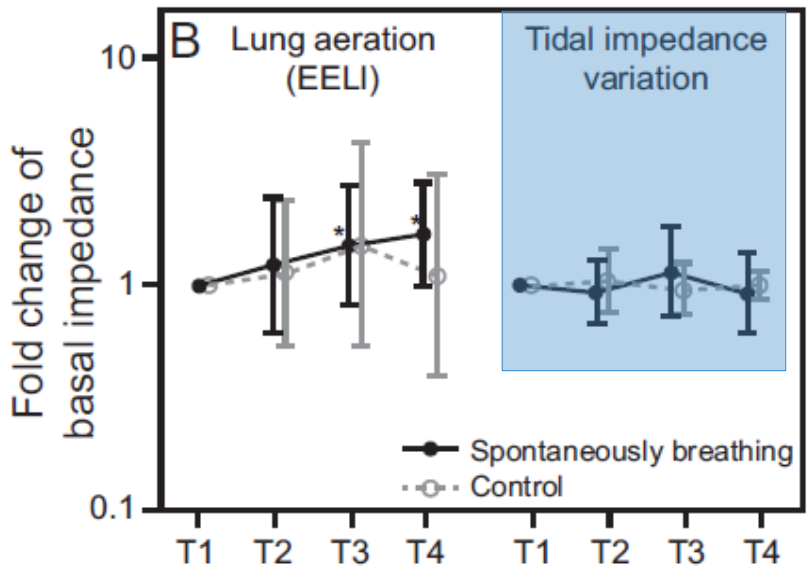
Tidal impedance variation

Amplitude d'impédance pulmonaire pour chaque cycle respiratoire. Elle reflète les variations de ventilation et est corrélée au volume courant.

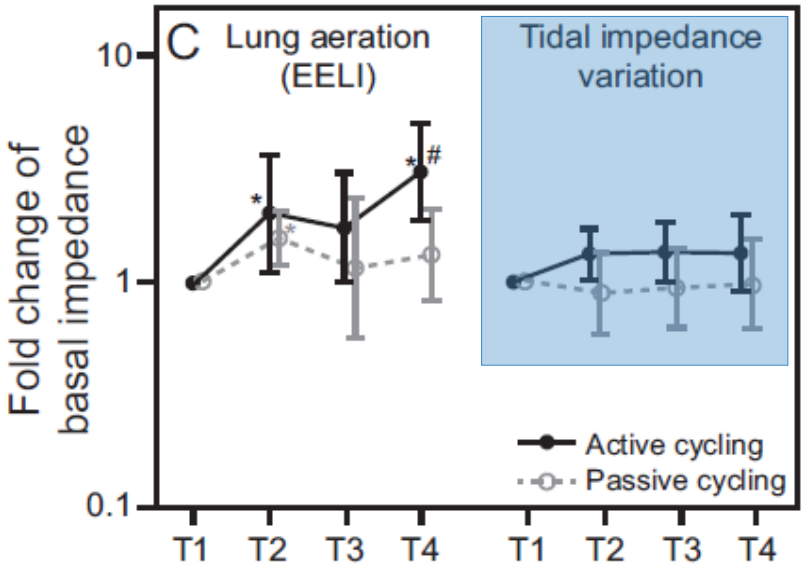
A: Mechanically ventilated



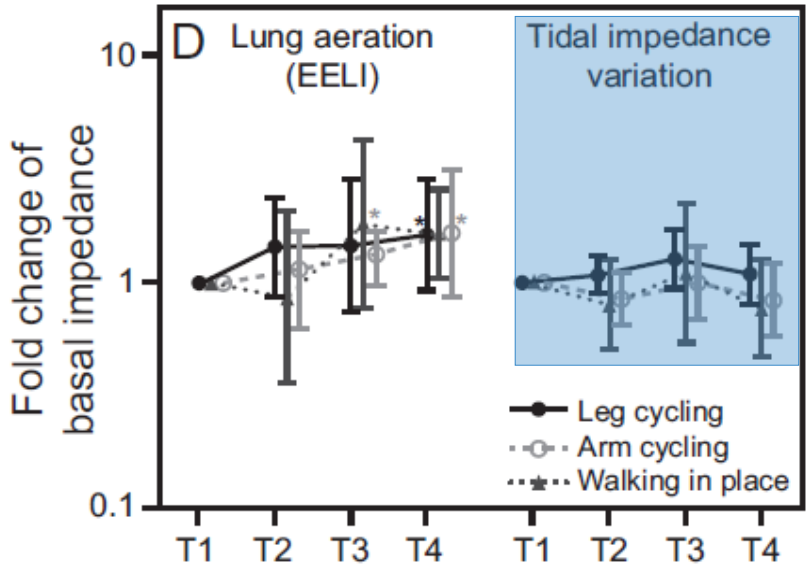
B: Spontaneously breathing



C: Subgroup of mechanically ventilated subjects



D: Subgroups of spontaneously breathing subjects performing 3 different activities



Collings and Cusack *BMC Anesthesiology* 2015, **15**:1
http://www.biomedcentral.com/1471-2253/15/1

BMC Anesthesiology

Cross Over
11 patients

jour 1 : fauteuil passif
jour 2 : Assis bord de lit

Mesures de la différence entre baseline et activité

RESEARCH ARTICLE Open Access

A repeated measures, randomised cross-over trial, comparing the acute exercise response between passive and active sitting in critically ill patients

Nikki Collings[1,2,3*] and Rebecca Cusack[2,3,4]

Table 2 Baseline to activity change scores presented as mean ± SD

Parameter	Baseline to activity change scores		p value
	PCT	SOEOB	
VO_2 (ml/min)	14.43 (−27.28 to 56.14)	90.69 (44.04 to 137.34)	p = 0.007*
VCO_2 (ml/min)	11.05 (−14.58 to 36.68)	34.31 (5.20 to 63.41)	p = 0.051
MV (l/min)	0.74 (−0.92 to 1.56)	2.86 (1.70 to 3.99)	p = 0.012*
MAP (mmHg)	9.37 (4.35 to 14.39)	8.78 (0.84 to 16.71)	p = 0.575
R (bpm)	8.08 (2.75 to 13.41)	7.31 (2.59 to 12.03)	p = 0.705

*Indicates p value < 0.05.

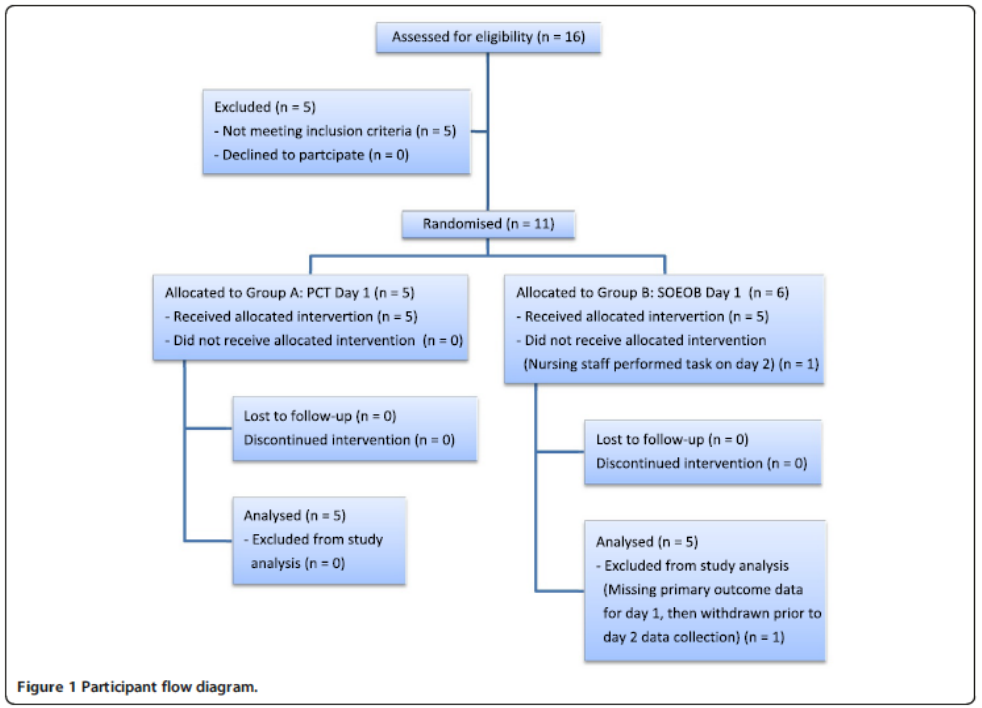
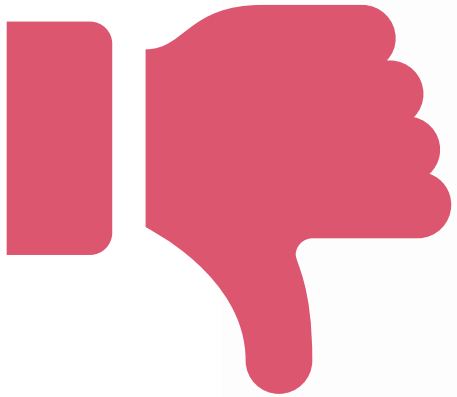


Figure 1 Participant flow diagram.

Pour conclure



Sortir le patient du lit

1. Les équipes n’ont pas le temps!
2. Entraine des effets indésirables
3. N’améliore pas le pronostic fonctionnel ou la survie
4. N’améliore pas les paramètres ventilatoires

Merci beaucoup

chu Orléans

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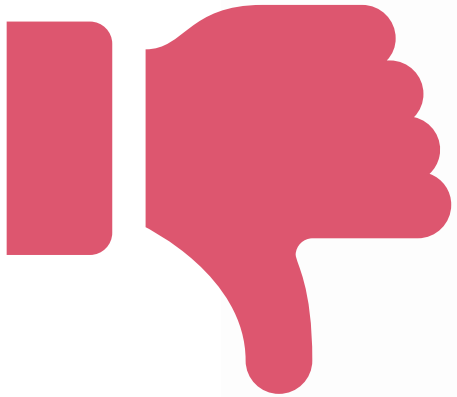

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