SUPPLEMENTARY TABLES: SUMMARY OF FINDINGS

Table SI. Electrical muscle stimulation compared with no intervention/any other type of intervention for preserving muscle mass in patients with multiple organ dysfunction syndrome (MODS): summary of findings

aystation synatome (11025)	• •					
Patient or population: patients	with MODS					
Setting: inpatients						
Intervention: electrical muscle						
Comparison: no intervention/a	any other type of intervention					
			Relative effect	Number of	Certainty of the	Comments
				participants	evidence	
	Anticipated absolute effects* (mean±SD)			(studies)	(GRADE)	
	Risk with no	Risk with electrical muscle				
	intervention/any other type	stimulation				
Outcomes	of intervention					
Preservation of muscle mass	In the control group, from	In the intervention group,	-	26	$\oplus O O O$	Authors reported that
assessed by	baseline until end of	from baseline until the end of		(1 RCT)	VERY LOW a,b	the difference in the
ultrasonographic	treatment the absolute	treatment, the absolute				CSD of the right rectus
measurement of the cross-	difference in the CSD of the	difference in the CSD of the				femoris, right vastus
sectional diameter (CSD) of	right rectus femoris was –	right rectus femoris was –				intermedius and left
the quadriceps muscle	0.21±0.10 cm.	0.11±0.06 cm.				vastus intermedius was
	Difference in the CSD of the	Difference in the CSD of the				statistically significant
	right vastus intermedius was	right vastus intermedius was				(in the intervention
	–0.29±0.28 cm.	–0.10±0.05 cm.				group <i>p</i> =0.009,
	Difference in the CSD of the	Difference in the CSD of the				<i>p</i> =0.034, <i>p</i> =0.018,
	left rectus femoris was –	left rectus femoris was –				respectively). However,
	0.19±0.16 cm	0.13±0.10 cm. Difference in				the difference in the
	Difference in the CSD of the	the CSD of the left vastus				CSD of the left rectus
	left vastus intermedius was –	intermedius was -0.09±0.05				femoris was not
	0.22±0.26 cm.	cm.				statistically significant
						(<i>p</i> =0.07).

*The risk in the intervention group is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). 95% CI: 95% confidence interval

GRADE Working Group grades of evidence

High certainty: We are confident that the true effect lies close to that of the estimate of the effect

Moderate certainty: We are moderately confident in the effect estimate: The true effect is probably close to the estimate of the effect, but there is a possibility that it is substantially different

Low certainty: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

Very low certainty: We have little confidence in the effect estimate: The true effect is probably substantially different from the estimate of the effect

^aDowngrade 2 levels due to the high risk of reporting bias (selective reporting), attrition bias (incomplete outcome data) and the unclear risk of selection bias (uncertainty around random sequence generation and allocation concealment). ^bDowngrade 1 level due to small sample size. MODS: Multiple Organ Dysfunction Syndrome; CSD: Cross Sectional Diameter; CI: Confidence Interval.

Table SII. Neuromuscular electrical stimulation compared with no intervention/any other type of intervention for preserving muscle strength in patients with multiple organ dysfunction syndrome (MODS): summary of findings

Comparison: no intervention	Anticipated al	y other type of intervention Anticipated absolute effects [*] (median [IQR])				
Outcomes Quadriceps and biceps muscle strength at awakening assessed with MRC score	Risk with no intervention/any other type of intervention In the control group, the MRC median score at awakening was	Risk with neuromuscular electrical stimulation In the intervention group, the MRC median score at	Relative effect (95% CI) –	Number of participants (studies) 28 (1 RCT)	Certainty of the evidence (GRADE) $\oplus \oplus \bigcirc \bigcirc$ LOW ^{a,b}	CommentsAuthors reported that there was a statistically significant difference (biceps: $p=0.014$; quadriceps: $p=0.025$)
	2 [IQR 2–3] for the quadriceps muscle and 3 [IQR 1–4] for the biceps muscle.	awakening was 3 [IQR 2–3] for the quadriceps muscle and 3 [IQR 2–4] for the biceps muscle.				
Quadriceps and biceps muscle strength on the last day of NMES assessed with MRC score	In the control group, the MRC median score on the last day of NMES was 3 [IQR 2–3] for the quadriceps muscle and 3 [IQR 2–4] for the biceps muscle.	In the intervention group, the MRC median score on the last day of NMES was 3 [3–4] for the quadriceps muscle and 4 [IQR 3–4] for the biceps muscle.	-	28 (1 RCT)	⊕⊕⊖⊖ LOW ^{a,b}	Authors reported that there was a statistically significant difference (biceps: $p=0.005$; quadriceps: $p=0.034$)
Arms circumferences assessed with a 7.5-MHz linear ultrasound transducer	In the control group, from enrolment to the last day of NMES, the median variation was -1.0 cm	In the intervention group, from the enrolment to the last day on NMES, the median variation was -1.3 cm	-	28 (1 RCT)	⊕⊕⊖⊖ LOW ^{a,b}	Authors reported that there was no statistically significant change in arms circumferences from baseline to the las NMES session. (p =0.615).

	[IQR –2.5 to 0]	[IQR –1.9 to 0]				
	cm.	cm.				
Thigh circumference	In the control	In the	-	28	$\Theta \Theta O O$	Authors reported that there was no
assessed with a 7.5-MHz	group, from the	intervention		(1 RCT)	LOW ^{a,b}	statistically significant change in tights
linear ultrasound	enrolment to the	group, from the				circumferences from baseline to the last
transducer	last day of	enrolment to the				NMES session. $(p=0.979)$.
	NMES, the	last day on				
	median variation	NMES, the				
	was 0.9 cm	median variation				
	[IQR -1.0 to	was –0.4 cm				
	1.9] cm.	[IQR -1.5 to				
		1.8] cm.				
Biceps thickness	In the control	In the control	-	28	$\Theta \Theta O O$	Authors reported that biceps thickness
assessed with a 7.5-MHz	group, from the	group, from the		(1 RCT)	LOW ^{a,b}	did not change during the whole NMES
linear ultrasound	enrolment to the	enrolment to the				session. There was no statistically
transducer	last day of	last day of				significant difference ($p=0.290$).
	NMES, the	NMES, the				
	median variation	median variation				
	was 0 cm [IQR	was 0 cm				
	-2 to 2] cm.	[IQR -3 to 0]				
		cm.				

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).

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^aDowngrade 1 level due to the unclear risk of selection bias (random sequence generation and selective reporting) and due to the high risk of reporting bias for incomplete outcome data. ^bDowngrade 1 level due to the small sample size. MODS: Multiple Organ Dysfunction Syndrome; MRC score: Medical Research Council score; NMES: Neuro-Muscolar Electrical Stimulation; CI: Confidence Interval.

Table SIII. Muscle activating measures in addition to an early protocol-based physiotherapy compared with early protocol-based physiotherapy alone for improving muscle strength and functional independency in patients with sepsis-related multiple organ dysfunction syndrome (MODS): summary of findings

Patient or population: patients with MODS Setting: inpatients, outpatients Intervention: muscle-activating measures in addition to an early protocol-based physiotherapy Comparison: early protocol-based physiotherapy alone Anticipated absolute effects* (median [IQR]) Risk with muscleactivating measures in Risk with early addition to an protocol-based early protocol-Number of Certainty of physiotherapy based Relative effect participants the evidence Outcomes alone physiotherapy (95% CI) (studies) (GRADE) Comments Muscle strength (at 50 Authors reported that there was no In the control In the $\oplus \oplus \bigcirc \bigcirc$ (1 RCT) statistically significant difference awakening) group, the MRC intervention LOW ^{a,b} assessed with MRC median score at group, the MRC between groups (p>0.05). awakening was median score at score 3.0. awakening was [IQR 2.7–3.4] 3.0. [IQR 2.1–3.8] Muscle strength (at In the control In the _ 50 $\oplus \oplus \bigcirc \bigcirc$ Authors reported that there was no (1 RCT) ICU discharge) group, the MRC intervention LOW a,b statistically significant difference assessed with MRC median score at group, the MRC between groups (p > 0.05). ICU discharge median score at score was 3.9. ICU discharge was 3.6. [IQR 3.3–4.0] [IQR 2.8–4.0] In the 50 Authors reported that there was no Muscle strength (at 12 In the control $\oplus \oplus \bigcirc \bigcirc$ months follow-up) group, the MRC intervention (1 RCT) LOW ^{a,b} statistically significant difference group, the MRC between groups (p>0.05). assessed with MRC median score at 12 months median score at score follow-up was 12 months 5.0. [IOR 4.3– follow-up was 5.0] 4.8. [IOR 4.3–5.0] Muscle strength NR 50 The results among groups are not NR $\oplus \oplus \bigcirc \bigcirc$ _ assessed with handgrip (1 RCT) LOW^{a,b} reported, nevertheless authors reported that muscle strength did not present any dynamometry statistically significant differences

						between the intervention and control groups $(p>0.05)$.
Muscle strength assessed with 6-min walking test	NR	NR	_	50 (1 RCT)	⊕⊕⊖⊖ LOW ^{a,b}	At the 12-month follow-up visit the 6- month walking test revealed significant muscle fatigue with no difference between the intervention and control groups.
Physical ability assessed with minimal modified FIM	In the control group, the mmFIM median score was 0.5 [IQR 0.5-2.0].	In the intervention group, the mmFIM median score was 0.5 [IQR 0.25-2.0].	_	50 (1 RCT)	⊕⊕⊖⊖ LOW ^{a,b}	Authors reported that there was no statistically significant difference between groups ($p=0.842$).

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).

95% CI: 95% confidence interval.

GRADE Working Group grades of evidence

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Very low certainty: We have little confidence in the effect estimate: The true effect is probably substantially different from the estimate of the effect

^aDowngrade 1 level due to the unclear risk of selection bias (allocation concealment) and of reporting bias (selective reporting).

^bDowngrade 1 level due to small sample size. MODS: Multiple Organ Dysfunction Syndrome; MRC score: Medical Research Council score; ICU: Intensive Care Unit; NR: Not Reported; CI: Confidence Interval.