Exercise Interventions for Adults with Burn Injuries

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Rule of Nines: Used to calculate TBSA

PICO QUESTION

Are exercise interventions effective in promoting recovery of adults in the burn ICU?

EXERCISE INTERVENTIONS

Resistance Training	Free weights, isokinetic dynamometer, and cable weights
Mobility Training	AROM, transfer training, tilt table training, and ambulatory training
Physiotherapy	AROM, PROM, early mobilization, chest physiotherapy, and ambulatory training

BACKGROUND & RATIONALE

→ Exercise interventions in the early burn rehabilitation phase may significantly improve recovery.

REVIEW PROCESS

SEARCH METHODOLOGY

MAIN FINDINGS & LIMITATIONS

Citation and Quality of Evidence	Intervention	Statistically Significant Findings	Limitations
Level I			
Gittings, P. M., et al. (2018). Quality Score 94%	Resistance Training	↑ Muscle strength ↑ QoL	Small sample sizes Bias within studies
Level II			
Çınar, M. A., et al. (2019). Quality Score 86%	Early Physiotherapy	↓ Inflammatory response	Small sample size
Deng, H., et. al. (2016). Quality Score 88%	Mobility Training	↓ LOS in BICU ↑ ROM	Measurement limitations Incomplete data
Gittings, P.M., et al. (2021). Quality Score 88%	Resistance Training	↑ Recovery of UE function	Closed early (funding) Recruitment not met Bias

Key: QoL = quality of life; LOS = length of stay; BICU = burn intensive care unit; ROM = range of motion; UE = upper extremity; ADL = activities of daily living; TBSA = total body surface area; AROM = active range of motion; PROM = passive range of motion

CLINICAL BOTTOM LINES & RECOMMENDATIONS

CHARTING & EVALUATION OF OUTCOMES

Shoulder AROM after Exercise Intervention

REFERENCES

HANDOUT

PRISMA