

Keywords Algorithm; Critical illness; Early exercise; Feasibility; Intensive care unit; Physical therapy

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References

- [1] Gosselink R, Bott J, Johnson M, Dean E, Nava S, Norrenberg M, et al. Physiotherapy for adult patients with critical illness: recommendations of the European Respiratory Society and European Society of Intensive Care Medicine Task Force on Physiotherapy for Critically Ill Patients. *Intensive Care Med* 2008;34(7):1188–99.
- [2] Laurent H, Aubret S, Richard R, Gorce Y, Caron E, Vallat A, et al. Systematic review of early exercise in intensive care: a qualitative and practical approach about literature. *Anaesthesia Critical Care and Pain Medicine* 2015 (in press).

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Cycling in critically ill patients in a neurological intensive care unit:

A pilot study

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Objective To determine the safety and feasibility of cycling in critically ill patients with brain or spinal cord injury.

Methods Patients with brain or spinal cord injury, either ventilated or not, who were admitted to the neurological intensive care unit (ICU) for at least one day were included. A multidisciplinary team with a physiotherapist, occupational therapist, nurses, intensive care doctors and a rehabilitation doctor screened the patients every morning for indications of early rehabilitation, specifically for indications of cycling with a cyclo-ergometer. This technique was used amongst other rehabilitation prescriptions in the neurological ICU such as mobilisations, neuromuscular-electrostimulation, ergonomic postures and transfer from bed to chair. The cyclo-ergometer used was MOTomed and gave the possibility to do passive, motor-assisted, or active resistive training. The use of MOTomed was assessed from a safety (contraindications and side effect profile) and feasibility (time constraints, availability, access to the machines and different modes) perspective.

Results During 40 days, 49 passive cycling sessions and 21 active cycling sessions were completed. Two patients used the MOTomed every day. Between one and seven patients, out of a total of 18 patients in the unit, were able to use the cyclo-ergometer on any one day. The physiotherapist needed ten minutes to prepare the patient. A nurse was needed to set up and adjust the external ventricular deviation if needed. Each session lasted 30 minutes. The MOTomed analysed the time using the passive or active mode, the force balance between the two legs and the calories used. The resistance and speed can be modified. The contraindications were: femoral venous or arterial lines, fragile skin, agitation or an acute medical problem. The relative contraindications were: bacterial isolation, external ventricular deviation. Only two side-effects were found: one desaturation and skin lesions.

Conclusion Literature on rehabilitation in neurological intensive care unit is poor. The delivery of cycling in critically ill patients with brain or spinal cord injury is both safe and feasible. Further research is required to confirm and evaluate the efficacy of cycling

to prevent muscle weakness, spasticity and functional disorder in this population.

Keywords Early rehabilitation; Intensive care unit; Cycling; Brain injury; Spinal cord injury

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Intensive care in rehabilitation and rehabilitation in intensive care



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The history of rehabilitation post-intensive care can be illustrated by the links between PRM and anaesthesia/intensive care in the centre of Cerbere, as soon as it was created, in 1976, at the instigation of Dr Bouffard-Vercelli and Pr. Louis Serre, in charge of the emergency department in Montpellier. Their progress is an excellent example of a care process' building.

Methods It's through this history of about 40 years that we will bring out the main strong points.

Results One of the first important progress is the creation, in 1982, of the "rehabilitation in intensive care" department (20 beds), at the charge of Dr Layre, that will become later the "rehabilitation in intensive care" department (RICD) Louis Serre. When Dr Bouffard-Vercelli died, in 1995, we have taken over the management of the centre that from now on bears his name and strengthened the RICD (30 beds). In 2005, with the departure of Dr Layre, a new stage has been covered with the Perpignan Hospital, which is an agreement of two anesthetists provisioning. At last, the development, in 2010, of the territorial coordination for post-acute care conducted us to take over the management of the PRM department in the Perpignan Hospital, that provides the rehabilitation in all the hospital departments, one of which is the intensive care department, finishing the circle. The re-location plan of the Bouffard-Vercelli Centre, expected in 2018, will permit to structure all this process (that includes moreover an unit dedicated to chronic vegetative and pauci-relationship states) on a single site, permitting to provide the rehabilitation from the emergency department to the return in active life (or institutionalization in medicosocial facilities created at this opportunity).

Discussion This exemplary experience, resulting from will of two men, will conduce us, in a immediate future, to structure a coordinated care process for nervous system, locomotive, cardiovascular ones, and old people.

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Awakening from coma: Assessment and stimulation in a Post-Critical Care Rehabilitation Units (PCCRU)



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Brain injured patients who have suffered a coma require important medical supervision with a coordinated program of rehabilitation and are most likely to benefit from Post-Critical Care Rehabilitation Units (PCCRU). For these patients, an important challenge is to recognize signs of awareness beyond