



GLOREHARIA



Gloreha Aria is a sensor-based device for the therapeutic treatment of the upper limb and for cognitive training. Interactive games encourage free movements of arm, wrist, and hand in space, with no gravity. The set-up is immediate: nothing to wear on the patient. An extraordinary value for money: Gloreha Aria is within reach of every rehabilitation center and physiotherapy center treating patients with upper limb motor deficits.

INTERACTIVE GAMES

Rehabilitation and amusement: the software offers several challenging and recreational exercises, based on active movements of the upper limb detected by dedicated sensors. The graphics interface involves

the patient and enhances the playful aspect of the treatment. In the motor exercise, the patient guides a game character in the execution of tasks of different complexity. The software records the levels of performance.



Collect mushrooms and train grasping movements



Avoid obstacles and train the flexion and extension of the wrist

Rehabilitation dose is a key point in treatment path. Interactive and challenging games help to increase the time of treatment as well as patients' motivation and compliance.

"The introduction of [Gloreha] has as its objective to support the work of the physiotherapist, to increase the intensity of the therapies administered and contain treatment costs".

F. Vanoglio - ClinRehabil. 2016 Apr 7

New technologies help to avoid patient's frustration, boredom and discouragement. In this way they can positively influence the results of a rehabilitation process.

- The movements detected by the sensors vary depending on the model used: flexion-extension of the fingers, pronation-supination of the wrist, radial-ulnar deviation, flexion-extension of the wrist, movements of the arm on the vertical and horizontal plane (back-forth, left-right, up-down)
- The difficulty level of the exercise can be programmed by the therapist or self-adapted based on the patient's performance
- The patient is free to actively move the arm in space, facilitated by a system for weight compensation
- All scores can be viewed on the screen and downloaded to pdf/excel file



Available in

Gloreha Workstation Plus • Gloreha Sinfonia • Gloreha Sinfonia Plus • Gloreha Aria



RADIAL/ULNAR DEVIATION



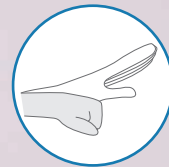
FLEXION EXTENSION



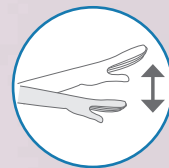
PRONATION SUPINATION



OPENING CLOSING



UP/DOWN



LEFT/RIGHT



BACK/FORTH



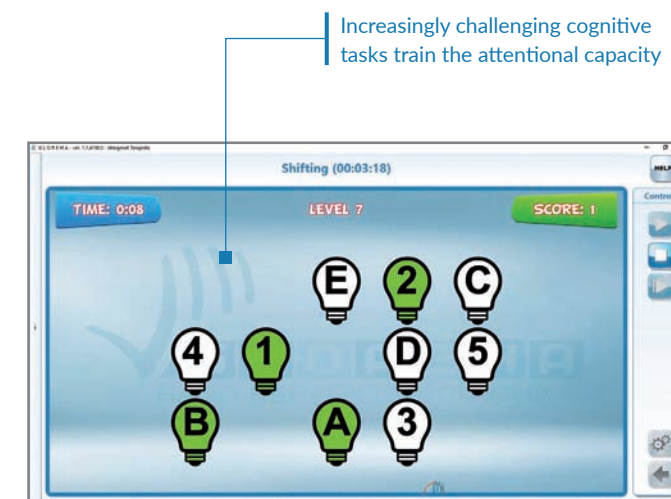
COGNITIVE EXERCISES

In a comprehensive rehabilitative path, neuro-cognitive recovery must support motor recovery.

Specific exercises, developed by the Gloreha team with the support of neuropsychologists, train cognitive abilities such as attention skills,

problem-solving, memory, shifting skills, selective attention, visuo-spatial exploration skills, etc.

The combination of motor and cognitive tasks also trains the divided attention, a skill of essential importance to perform many ADLs.



Cognitive training stimulates neuroplasticity: the ability of the nervous system to respond to intrinsic and extrinsic stimuli by reorganizing its structure, function, and connections.

The aging of the population brings with it an increase in cases of dementia and neurocognitive problems due to brain damage. Computerized cognitive treatments are an excellent treatment to prevent this phenomenon.

It is not easy for patients to understand and admit their cognitive deficits. Combining cognitive exercises with motor tasks can facilitate patients' compliance and motivation.

- The difficulty level self-adapts based on the patient's abilities
- The playful aspect and the combination of motor tasks facilitate the level of compliance of the patient with cognitive deficit
- The fundamental principles of neuropsychological treatment have been included in the exercises proposed
- Colors, numbers, images, playing cards: the software offers interactive exercises of cognitive stimulation, tailored to the patient
- Patients and therapists have immediate feedback on the performance trend, automatically stored by the system



Leap Motion® Technology

Available in
Gloreha Workstation Plus • Gloreha Sinfonia Plus • Gloreha Aria



WEIGHT COMPENSATION OF THE UPPER LIMB

Gloreha devices are equipped with two dynamic supports that allow the patient to move the upper limb with no gravity. The compensation level is calibrated according to the weight of the arm and the residual control

and movement abilities of the patient. These supports are particularly useful during functional training because otherwise it often would not be possible without adequate weight relief for the upper limb.

JUNCTIONS THAT FACILITATE
PATIENT MOVEMENT IN ALL
DIRECTIONS

LIGHTWEIGHT AND
COMFORTABLE

12 LEVELS
OF COMPENSATION



The introduction of a weight compensator for the upper limb in post-stroke rehabilitation improves the quality of movements, reduces patient effort and allows an increase in the number of repetitions of the motor task.

Arm supports allow widening the work area during reaching exercises and are therefore particularly useful during the training of ADLs.



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