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Letter to the Editor

Early Speech-Language Rehabilitation for Stroke Patients During the Covid-19 Outbreak

We read with great interest the article intitled “Acute Stroke Care in the Coronavirus Disease 2019 pandemic” by Dafer, Osteraas and Biller. This article emphasizes the importance of maintaining a high standard quality of care for patients with acute stroke even if usual practices will have to be modified. Authors include rehabilitation as an integral part of stroke recovery. We strongly support this position: in this letter we would like to share our experience of delivering speech-language rehabilitation for stroke inpatients during the Covid-19 outbreak. We work in the Rehabilitation Unit of the Parma University Hospital, in Northern Italy. Since February 2020 our Institution had to cope with the Covid-19 epidemic: with a great organizational effort, more than 600 beds for Covid-19 infected patients were created. In this context, our Intensive Rehabilitation Unit ward and all our outpatient rehabilitation services were closed within March 27.

Still, it was necessary to ensure the appropriate interventions to the persons in need of rehabilitation and to support all the other areas of healthcare by facilitating the continuity of care.¹ New work routines were established and implemented with new rehabilitation protocols for patients with and without Covid-19 infection in Icu, Post-Intensive Care Unit, Stroke Unit and other Hospital wards.

Protection of patients and professionals was a priority so adequate PPE was necessary in every setting, in full compliance of the rules and provisions issued by the hospital and the institutional bodies.

Rehabilitation activities provided by The Speech-language section of the Unit resulted to be particularly influenced by the new context complexity. Particular attention and the most protective PPE were used during dysphagia evaluation and rehabilitation and with tracheostomized patients, activities with close contact with the airway and the projections of droplets.

Since march third to June 19, 103 patients received a bedside rehabilitative approach to oropharyngeal dysphagia or neuropsychological deficits acquired after acute neurological pathologies with 43 of them suffering ischemic stroke.

Providing rehabilitation services with the new working routine has been feasible, but it challenged professionals in many ways and different limitations emerged:

-Space limitations: bedside rehabilitation has been performed without a proper quiet and dedicated space: rooms were always occupied by more than one patient, enhancing distractibility and confusion, with consequent reduction of patient attention resources and rehabilitation efficacy.

-Activity limitations: language evaluation tests have been reduced to a minimum set adapted to the situation: Robertson Dysarthria evaluation profile² for dysarthria, ELLM Bedside Language Examination for aphasia.³ Treatment has been restricted to oral language stimulation tasks and language articulation: it was impossible to work on written language without the proper paper and digital material and a desk or an adequate wheelchair with table.

-Relational limitations: absence of caregivers (whose access was denied after march 7) represented another problem for patients with cognitive deficits, increasing confusion and anxiety and reducing the opportunity to receive the adequate stimulation obtained with caregiver training.

-Time limitations: the PPE proper fitting and removal was time expensive. This operation had to be repeated in the different wards and the presence of PPE represented a further obstacle for patients with visual, attention or language deficits.

Dysphagia evaluation was the least affected activity: it was performed with Bedside Examination-MMASA⁴ with swallowing tests and with Modified Evan's Blue Dye Test⁵ for decannulation protocol. For some of these patients a fiberoptic endoscopic evaluation of swallowing was requested to complete diagnosis.

During the Covid emergency we have tried to ensure the appropriate interventions to the persons in need of rehabilitation adapting our work to the new situation, without the normal assessment and treatment tools at our disposal. Safety for patients and professionals has been guaranteed by appropriated PPE and modified procedures. All of the patients who needed a consult by the Speech Language Therapy section were evaluated and many were treated within the limits of the aforementioned measures; this work has been important for patient functional progression but at the same time we are aware of the fact that these conditions can limit patient resources and negatively influence improvement potential. Rehabilitation demand for stroke patients, who often present neuropsychological sequelae, will probably grow due to the limited approach that they received during the Covid-19 outbreak.

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