résultats. – La patiente présente après TCI des améliorations notables de tous les tests fonctionnels : évaluation de Held et Tardieu, poignet et les doigts (2 à 4). Nombre de cube/minute au box et Block (9 à 21). Le nombre de doigts entrelacés/minute au Purdue Pegboard (1 à 7). L’IB (40 à 65) MIF (82 à 110). L’évaluation AMPS montre une évolution notable mais non significative de l’échelle motrice (−1,86 à −1,47 logits) mais ne montre aucune évolution de l’échelle procédurale (0,33 à 0,33 logits). À huit mois post-TCI, la patiente montre une évolution significative de l’échelle motrice (−1,47 à −0,95) mais aucune évolution sur l’échelle procédurale.

Discussion. – Ces résultats montrent l’importance de mesurer effectivement le transfert des acquis de la rééducation dans les AVQ en utilisant des échelles situationnelles validées. L’utilisation du AMPS permet une analyse qualitative et détaillée, en situation réelle d’activité, de l’évolution de la performance motrice et procédurale.

http://dx.doi.org/10.1016/j.rehab.2012.07.335

English version

CO48-001-e
Cerebrovascular accident and occupational therapy: Towards ethics in paramedical research
P. Sureau
Institut de formation en ergothérapie, CHU, IMS, rue Francisco-Ferrer, 33160 Bordeaux cédex, France
E-mail address: patrick.sureau@chu-bordeaux.fr.

Keywords: Occupational therapy; Research; Ethic

The treatment of patients suffering from CVA has largely evolved during these last fifteen years but nevertheless, epidemiological data stay strong: causing nearly 40,000 deaths per year, CVA remains the first non-traumatic cause of handicap.

With a still high recurrence rate after 5 years (between 30 and 50 percent according different studies) these cerebral lesions leave nearly 30,000 patients with heavy after-effects, highly restricting their daily living activities and their relatives’ occupations. Therefore, it becomes a real challenge for allied Health professional to help these patients in recovering a satisfying level of social, family, professional participation. Nowadays, we can rely more and more on new rehabilitation techniques such as robotics, virtual reality and induced constraint therapy that seem to spread and show “relatively” satisfying results.

“Relatively” because, according to the patients and their family, the non-recovery stays a failure, a disillusion. Our Health professional role is, more than ever, to purpose an accompaniment that must comprise both an actualised knowledge of medical and rehabilitation progress, including an interest and increased contribution to clinical research, but also a large perspective of ever dramatic situations in which patients stay.

The “problematic of the hemiplegic patient’s upper limb” is an emblematic example as it forces us to perfect our scientific knowledge in order to offer the best recovery chances to these patients, but also as it leads us to consider other solutions but medical in order to help them recover the best possible quality of life. The scientific access of the problematic of the hemiplegic patient’s upper limb is only one part of our work about which we’ll talk today, but never forgetting that objective is the improvement of the patients and their relatives daily wellness.

http://dx.doi.org/10.1016/j.rehab.2012.07.336

*Corresponding author. E-mail address: misstral.agnes@gmail.com.

Keywords: Cognitive abilities; Grid analysis; Group game; Occupational therapy; Acquired brain injury

In order to overcome the limitations of individual care in occupational therapy, we wanted to try a working group for brain injury patients.

Based on the model of the Handicap Creation Process [1], we analysed the disabilities and handicap situations of these patients. We determined the group’s objectives: act on problems of social behaviour, manage imposed interpersonal relationships, be aware of cognitive difficulties, evaluate outcome as a function of daily life.

The use of the game concept seemed discerning because of its known social and socializing action [2].

The group game was composed of two to four patients and took place once a week, offering a different game in each session. Included patients had preserved communication abilities and had no major motor disabilities.

The activity included three steps: reading the rules and taking notes, free running game led by two occupational therapists, self-evaluation.

Each game was first analysed individually to identify the cognitive capacities. Our final analysis grid of cognitive skills arose from the synthesis of the common capacities listed. It has enabled us to objectively assess the progress of our patients and can be adapted to all games.

We will describe in our presentation the progress of this group, the grid analysis constituted, and the results.

References

http://dx.doi.org/10.1016/j.rehab.2012.07.337

CO48-003-e
Early phase of multidisciplinary prevention program of shoulder pain post-stroke (4P-ED)
A. Cook a,*, D. Dathy b, E. Sorita a,b, A. Bénard a, I. Sibon a
a Service UNV secrétariat de neurologie 2A3, CHU Pellegrin, place Amélie-Raba-Léon, 33076 Bordeaux cédex, France
b Institut de formation en ergothérapie, France

*Unité de soutien méthodologique à la recherche clinique et épidémiologique du CHU, France

*Corresponding author. E-mail address: amandine.cook@chu-bordeaux.fr.

Keywords: Stroke; Shoulder pain; Stroke unit; Multidisciplinary

Shoulder pain is one of the four most frequently encountered after stroke complications. The importance of prevention isn’t more to justify but it is not consensus on common conduct to follow.

Main objective. – Propose a paramedical research protocol to improve the positioning of the hemiplegic shoulder in stroke unit and prevent shoulder pain acute stroke.

Methods. – Analysis of the literature has shown the possibility that our positioning practices improved and adapted equipment has been acquired. A multidisciplinary working group is mounted to the knowledge of the care and rehabilitation teams. A reflection of the group scope on the modes of transmission on the patient’s positioning.

Patient’s actions are focus in four points:
– positioning in bed, wheelchair and standing with specific materials (holds, sling in external rotation and abduction);
– be careful of shoulder’s coaptation in care and functional activities (toilet, dressing, transfers);
– a training of the patient and members of family on pathology, risk, use of material;
– daily passive mobilisation of the upper member by a therapist.

Results. – A training have been made to care team. Visual transmission system as booklets at the bed of the patient has been installed.
Conclusion.-- A clinical trial, a comparative of superiority, monocentric, in two parallel groups is included in phase. Objective: show the superiority of an approach to prevention of shoulder pain of patients post-stroke, in stroke unit.

Further reading

http://dx.doi.org/10.1016/j.rehab.2012.07.338

CO48-004-e
Bimanual coupling in stroke patients and its applications for rehabilitation in occupational therapy
B. Guerin a,*, R. Sleimen Malkoum b,*, L. Thefenne*
“HIA Laveran, boulevard Laveran, BP60149, 13384 Marseille, France
UMR 7287, institut des sciences du mouvement, E.-J.-Marey, CNRS et Aix-Marseille université, Marseille, France
*Corresponding authors.
E-mail address: beneguerin@yahoo.fr.

Keywords: Stroke; Bimanual coupling; Rehabilitation
Background.– Although the majority of functional activities implicate both upper-limbs, the assessment and rehabilitation of bimanual synergies remain largely neglected following a cerebrovascular accident (CVA). This issue is notably important knowing that more than half of stroke patients suffer from chronic functional limitations concerning mainly manual activities. Objectives.– Bimanual behavior is primarily characterized by the presence of a spontaneous coupling between the limbs. This coupling is observable via the presence of spatio-temporal interactions between the kinematics of each limb. In stroke patients, many questions remain regarding, on the one hand, the conditions according to which such coupling persists and, on the other hand, how it could be eventually restored. The aim of our study (in progress) is to provide some answers to these questions.
Methods.– The present study is a monocentric prospective cohort. Patients were recruited in their sub-acute phase (> 2 months). They had no major executive functions deficits. Following an initial phase of traditional rehabilitation, patients underwent a specific rehabilitation program for a period of 6 months. The rehabilitation program consists in warming-up unimanual exercises, followed by bimanual exercises designed to stimulate the expression of coupling. It includes also bimanual exercises that were inspired from daily living activities.
Assessment sessions are planned at pre-, mid-, and post-rehabilitation. An additional assessment session is also scheduled following a retention period. Assessments included a kinematic testing wherein kinematic variables were acquired via a digitizer, and a clinical evaluation including functional tests.
Results.– Preliminary results show an alteration in bimanual interactions following stroke, which related to the severity of the lesion. This alteration seems, however, to be more or less reversible following a proper intervention.
Discussion.– We suggest a simple protocol whose aim is to re-establish bimanual coupling and readapt functional synergies involving upper-limbs. Our preliminary results are encouraging and open doors to further investigations.

http://dx.doi.org/10.1016/j.rehab.2012.07.339

CO48-006-e
Integration and evaluation of a lexical prediction engine in a virtual keyboard support on text input for people with mobility impairments
S. Pouplin a,*, J. Robertson a, J.-Y. Antoine a, A. Blanchet a, J.-L. Kahloun a, P. Voll e, J. Bouteille a, D. Benomail a
a Plateforme nouvelles technologies, hôpital universitaire Raymond-Poincaré, 104, avenue Raymond-Poincaré, 92380 Garches, France
b Laboratoire d’informatique, université François-Rabelais, Tours et Lab-STICC, CNRS, France
c InVienitis, France
d IN’TECH INFO, Groupe ESIEA, France
*Corresponding author.
E-mail address: samuel.pouplin@rpc.aphp.fr.

Purpose.– Information technologies play a large role in both the social and professional lives of individuals. Text input using assistive devices allowing computer access for disabled people is often slow. The aim of this study was to evaluate the effect of a dynamic on-screen keyboard (custom virtual keyboard [CVK]) and a word prediction system (Sybille) on text input speed in patients with functional tetraplegia.
Methods.– Ten patients tested four modes in their homes (Standard, Standard + Word, Dynamic and Dynamic + Word) for one month before choosing one and continuing to use it for another month.
Results.– The results suggested that the effect of the word prediction system on text input speed was very variable across subjects. Only the patient who used a scanning system appeared to benefit. The same was found for the dynamic keyboard.